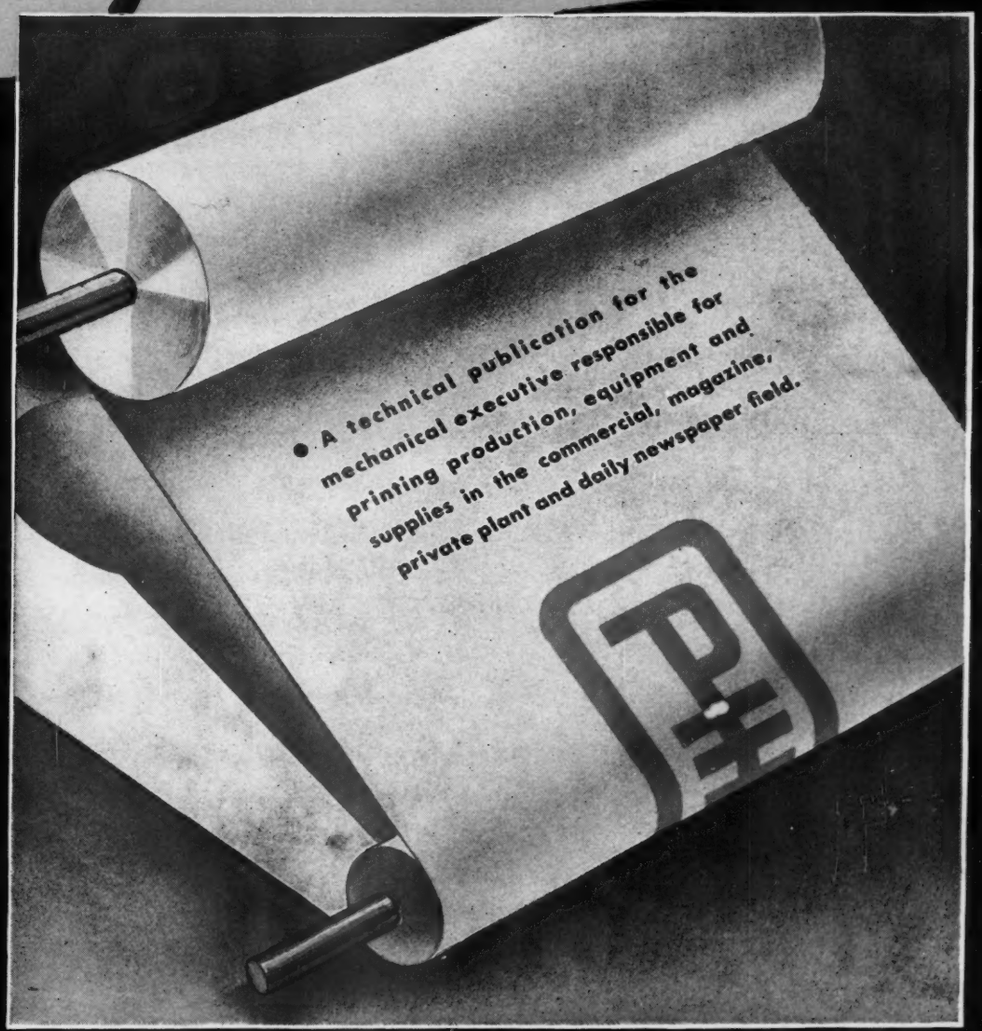
PRINTING EQUIPMENT *Engineer*

SEPTEMBER • 1944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PRINTING EQUIPMENT *Engineer*

Volume 68 Number 6

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

MacD. SINCLAIR
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Associate Editor

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SEPTEMBER, 1944

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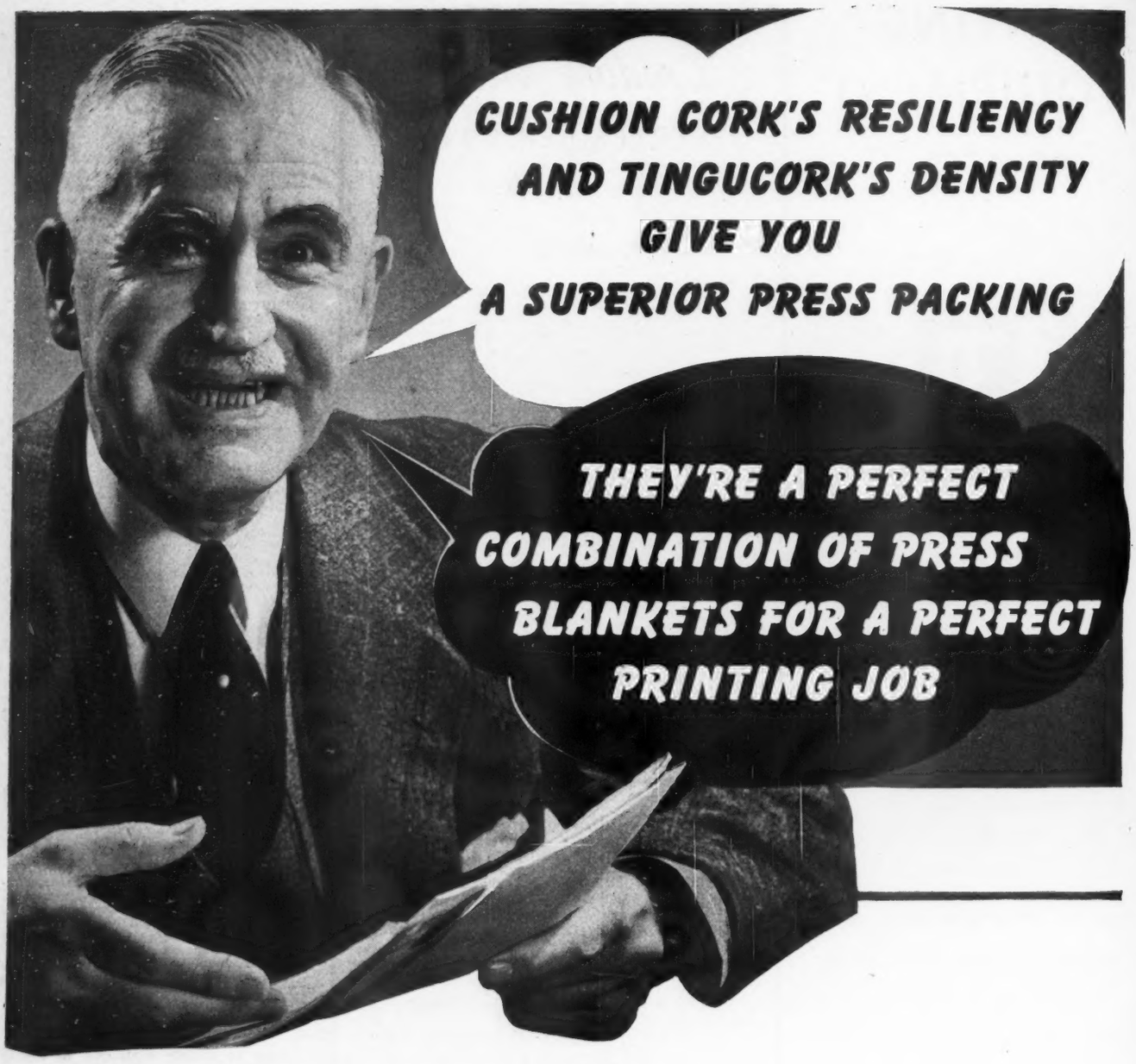

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We are proud of the important contributions Monotype men and management have made toward the defeat of our enemies, and which have helped to hasten the day when Peace shall again reign o'er our land. When that day comes, and our obligations to do our utmost to attain Victory have been met, we propose once again to devote our full resources to the design and building of equipment for use in the Graphic Arts, applying to commercial operations the lessons of the war production period, in an effort to put the name "Monotype" on the best equipment, of its kind, in the trade.

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Harry D. Best

Chairman of the Board

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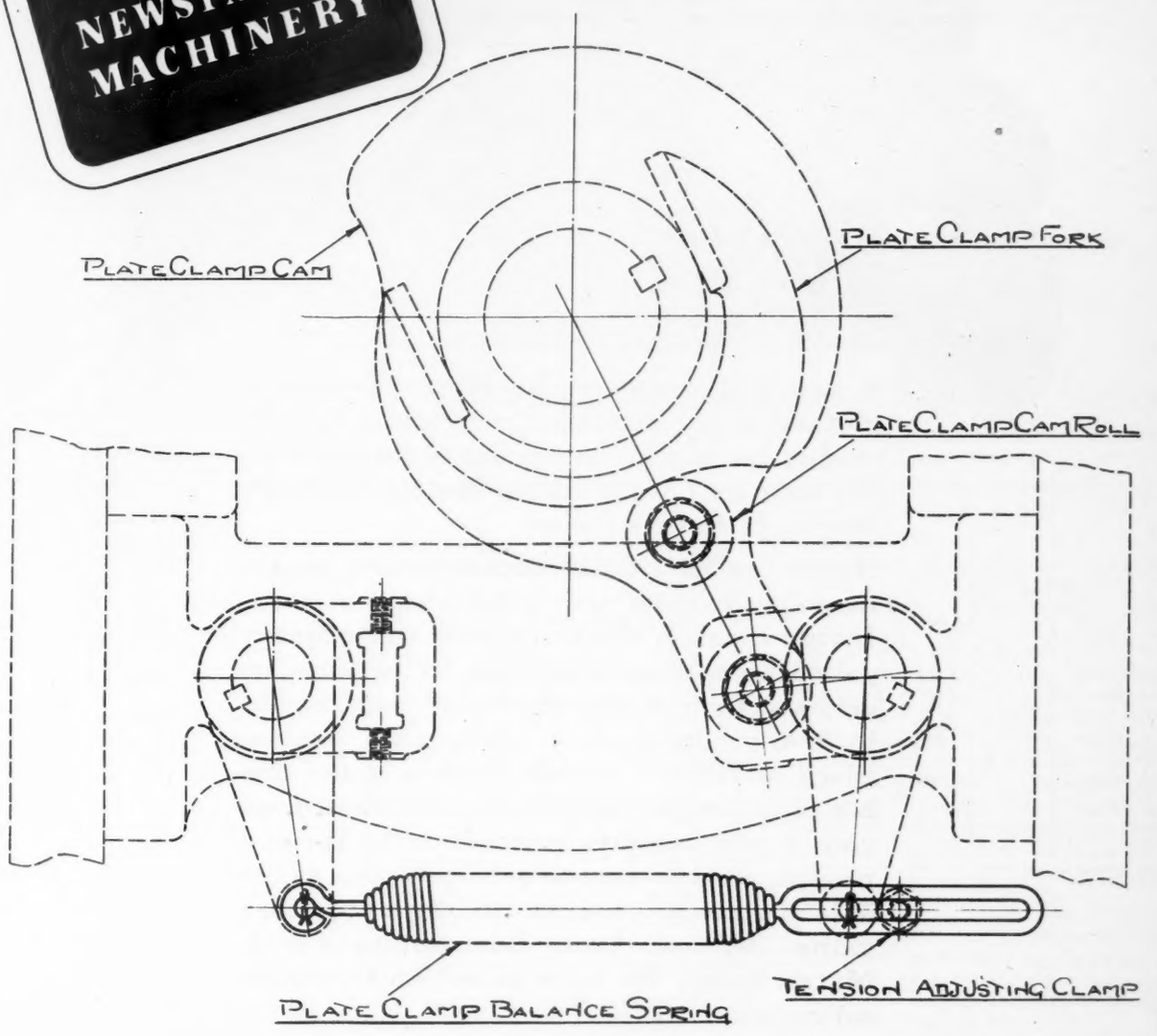

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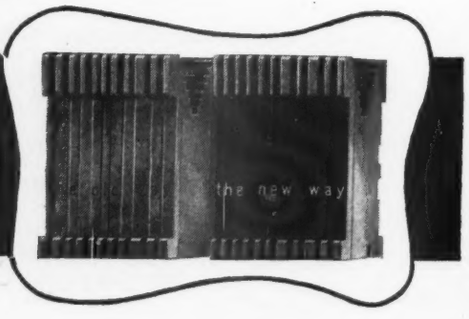


Report of Printing Equipment Engineer's

Huddle with Printing Executives

In Plants Throughout the United States

By MacD. SINCLAIR

SECTION I

SEVERAL months ago, *Printing Equipment Engineer* sent out a questionnaire to one executive reader in each of 3500 printing plants in 48 states and the District of Columbia. Our purpose in surveying the 3500 plants was to determine technical trends in the industry, future building plans and future equipment purchase plans for the several-year period following the close of the war.

The 3500 questionnaires were sent to executives in well-rated plants ($7500 and up annual business volume). Included were combination, commercial, newspaper, magazine, offset-lith, book, gravure and specialty plants.

We are now ready to report upon our huddle with printing plant production and mechanical executives as well as many management executives. In this issue, we present that part of the report related to trends in the industry as well as the building plans of executives of printing plants throughout the United States.

We received 670 replies, of which 561 executives sent us filled-out questionnaires, or 16.03% of the total number mailed to our readers. The 561 replying firms have an annual business volume of approx. $447,353,220.00. We received word from 109 plant executives who stated they are not yet ready to reveal postwar plans.

By Way of Explanation

In our report of the questionnaires received, we have broken them down into mechanical departments in the printing plant. The varying number of mechanical departments in plants reporting to *Printing Equipment Engineer*, it should be understood, varies with the kind or kinds of work done in each plant. Thus, a commercial letterpress printing plant may operate a composing room, a pressroom and a bindery. Again, a commercial letterpress plant may operate a composing room and pressroom but without a bindery. A newspaper printing plant, of course, usually operates with composing, stereo, pressroom and mailing departments, but a number of those reporting may or may not operate photo-engraving plants. We make this explanation so our readers will understand the wide differences in the number of reports by mechanical departments.

In preparing the mailing list, *Printing Equipment Engineer* sent questionnaires to one executive only in a printing plant. No advertisers, subscribers nor complimentary or exchange addresses were included in the mailing list.

Printing Equipment Engineer **is reporting upon trends in the printing industry as collated from replies received from 561 plant executives in answer to our recent questionnaire. We trust our readers will keep in mind that this report is only a sampling of the entire executive readership of *Printing Equipment Engineer*.**

The sampling, however, is more than sufficient to indicate definitely the important trends within the printing industry as indicated by only a part of our readership with respect to processes, building expansion and new equipment acquisitions.

Industry Trends

Information given in the questionnaires reveals a number of trends in the industry. These are indicated by the summaries presented below.

New Processes

To get this information we asked our executive readers specific questions. We asked whether or not the firms employed by our readers are planning to adopt some new process during the several-year period following the close of the war. It is apparent that letterpress printers have given this subject a great deal of thought. We also asked them if they expected to abandon certain kinds of work they are now doing to the specialty field.

Offset-Lith

To this section of the questionnaire, we received 123 replies. Outstanding among the replies are 53 letterpress plants who will install 73 offset-lith presses. Of these 53 firms, 20 will install

KIND AND NUMBER OF PLANTS REPLYING TO PRINTING EQUIPMENT ENGINEER'S SURVEY QUESTIONNAIRE

(Total annual business volume of 561 plants of all kinds replying is approx. $447,353,220.00)

	Plants	Depts.
Combination plants (These plants do commercial-letterpress-and-offset, commercial-and-magazine, commercial-and-newspaper, or book-and magazine printing.)	199	
Commercial letterpress printing plants	172	
Newspaper plants	137	
Offset-lith plants	15	
Plant offset-lith departments		59
Magazine plants	13	
Book plants	8	
Trade composition plants	3	
Plant composing departments		276
Specialty plants	4	
Photo-engraving plants	7	
Plant engraving departments		80
Stereotype platemaking plants	1	
Plant stereo departments		168
Gravure platemaking plants	1	
Bindery plants	1	
Plant bindery departments		173
Total plants replying	561	
Plants not yet ready to reveal definite postwar plans	109	

complete platemaking plants. Of the 73 presses, 14 will be 17x22 size, while the balance consist mostly of larger size single and two-color presses.

Gravure

Next among the letterpress printers who will install an additional process are 9 firms who will install gravure equipment for commercial printing. Most of these will buy equipment to make their own plates.

Form Work

Carbon interleaved and continuous form equipment will be installed by 8 firms in addition to their regular letterpress work.

Convert to Rotary Letterpress

Five letterpress flatbed firms identifying their plants as now doing magazine and label work will convert to rotary letterpress. A total of 39 commercial plant executives state that work now done by flatbed will be executed on new rotary presses. They did not state just what kind of work will be affected.

Miscellaneous Processes

Seventeen companies will install new equipment for which they are not now equipped as follows: Photo-engraving 2, Die stamping, Machine composition, Ad composition, Paper specialties, Thermography, Fine book typography, Photography, Wrappers, Stationery, Case binding, Stereotyping, Special type of envelope, Greeting card imprinting, Syndicated publication, Ruling and pencil printing.

Processes to be Abandoned to Specialty Field

Seven letterpress printers will abandon certain types of work to the specialty field as follows: One each Snap-A-Parts, Labels, Bindery, Job printing, General advertising, and Publication work. One firm will abandon label and booklet work.

Automatic Line-Composing Machine Composition

With respect to automatic line-composing machine composition, executives of 102 plants supporting composing departments, state their firms either will order such equipment or they are interested in installing it.

Proof Presses

No doubt because of the educational activities of trade organizations and equipment manufacturers, plus offset-lith's demands for clear reproduction proofs, precision proof presses will be in demand during the postwar period. Another logical reason for the demand for modern proof presses is that not only do they provide a means for securing first-class proofs, but they are used as a gauge for testing the height of printing elements before forms leave the composing room. In 136 printing plants supporting composing rooms, executives state they will order new proof presses. In the photo-engraving field, 24 executives out of 87 plants also will install new proof presses.

Newspaper R.O.P. Color

In the newspaper field, run-of-paper color-printing facilities are uppermost in the minds of executives in their postwar press equipment. In 52 pressrooms in which new presses will be installed, provision will be made for run-of-paper color. In 31 other newspaper pressrooms, attachments will be provided for printing r.o.p. color.

Processes To Be Added or Adandoned By 123 Companies Doing Letterpress Work Only

Number of letterpress firms replying as follows:	
Combination plants	59
Commercial plants	44
Newspaper plants	8
Magazine plants	4
Trade plants	3
Book plants	2
Specialty plants	3
Total	123
Will install 73 offset-lith presses	53
Will install offset-lith platemaking plants	20
Will install gravure equipment for commercial printing	9
Will install carbon interleaved and continuous form equipment	8
Will convert from flatbed to rotary equipment	44
Will install photo-engraving plant	2
Will install (1 each) die stamping, machine composition, paper specialties, thermography, fine book typography, photography, wrappers, stationery, case binding, stereotyping, special envelope, greeting card imprinting, syndicated publication, ruling-and-pencil printing equipment	15
Did not identify process	2
Will abandon various processes to specialty field	9

Newspaper Stereotyping

There is a definite trend toward direct pressure stereotype molding in the newspaper field. Direct pressure molding presses will be installed by 45 stereotype departments. With respect to the generally prevalent present method of molding, 40 executives state they expect to continue molding by roller but with new equipment.

Stereo Color Process Work

Apparently, those who are familiar with the stereotype process are agreeable to putting their money into color process platemaking equipment. Executives of 59 plants have stated their firms will install color process equipment. These replies came from newspaper and commercial plant executives.

Letterpress Step-and-Repeat

Out of 87 replies received from photoengraving executives, 20, or 34.25%, state they are interested in step-and-repeat equipment for making multiple image plates in black and color.

Offset-Lith Photo-Typesetting Equipment

We heard from 74 offset-lith plant executives who were agreeable to giving us their intentions toward photo-typesetting for lithographic printers. These executives state they will consider installing this equipment for text and display composition when it becomes available. On the other hand, 24 plant executives state they prefer working from reproduction proofs.

New Building

OF the replies received, 84 firms are planning to erect new buildings in the postwar period. Commentaries of certain plant executives are very interesting. These are made, we assume, in the light of the present inconveniences, production hazards or other obstacles to top production volume, which these executives hope to get rid of when their companies occupy the new buildings.

Typical comments are as follows: "We will locate in the suburb of a small city to permit expansion, provide parking space and induce cleanliness." A plant executive states: "We will have good loading facilities; large elevator capacity will be highly essential, as well as good proximity to transportation." Another executive writes: "We will make use of colored paint functionally for walls, ceilings and equipment." Yet another states: "We will stress lighting, ventilation, and rest and sanitary facilities."

Most of the new production department buildings will consist of from one to three stories and only five will erect buildings having four or more stories.

For exterior of the new buildings brick predominates, 32 plants to have brick exterior walls, 20 will be of steel and concrete, while 31 executives state officials of their companies are undecided.

Mechanical department flooring has been definitely decided upon as follows: 26 plants will have concrete, 18 will have wood flooring, 6 will have composition flooring while 34 executives state the type of flooring is undecided as yet.

Air conditioning, lighting and other facilities have received serious consideration. Of the 84 new buildings to be erected, 43 will be air-conditioned. Fluorescent plant lighting will be installed by 52 companies. Paper handling equipment will be installed by 41 companies. Plate conveying and handling equipment will be installed by 12 companies in their new buildings.

Heating facilities for the new buildings have been definitely determined upon as follows: 24 will be steam-heated; 15 will be gas-heated; 20 will be heated by coal, oil or electric energy, while 25 are undecided as to the kind of heating equipment which will be installed.

New Buildings To Be Erected When Conditions Permit

Number of buildings to be erected	84
Type of building:	
Brick	32
Concrete	21
Undecided material	31
Heating:	
Steam	24
Gas	15
Other means	20
Undecided	25
Flooring:	
Concrete	26
Wood	18
Composition	6
Undecided	34
Air conditioning	43
Fluorescent lighting	52
Paper handling equipment	41
Plate conveying and handling equipment	12

New Addition To Be Erected To Present Plant

Will erect new addition	60
To be air-conditioned	19
Will install fluorescent lighting	39
Flooring in 34 mechanical departments of new additions:	
Concrete	13
Wood	15
Concrete and wood	2
Concrete and asphalt	1
Wood and steel	1
Composition	2
Undecided	26

New Addition

IN answer to our inquiry about printing plants expecting to erect new additions to their present buildings, 60 executives replied, stating that their firms will erect building additions when conditions permit. Out of the 60 replies received, 43 plants have an annual business volume of $64,300,000. A total of 44 plants already have present ground floor area of 3,433,835 sq. ft. The new addition ground floor area of 47 plants will total 778,158 sq. ft.

Out of the 60 new additions to be erected 19 will be air-conditioned, while fluorescent lighting will be installed in 39 new additions.

Flooring in the mechanical departments of 34 new building additions will be laid as follows: Concrete 13, wood 14, concrete and wood 2, concrete and asphalt 1, wood and steel 1, composition 2, undecided 26.

Purposes for which the new additions will be erected are specified by a number of executives as follows: "Addition will be used for garage, loading platform and paper storage"; "Addition will be erected for press and mail rooms and paper storage"; "Will enlarge stockroom and build new bindery and will spend approximately $500,000 for presses and additions after the war"; "Engraving and news departments will be housed in additional story"; "Warehouse addition will be erected for 200 cars of paper."

(Report To Be Continued Next Month)

Manipulation of high moisture mats in stereotype department of daily newspaper — Several apparently unrelated factors in molding affect the production of good plates

By HENRY (Tony) MESSINA*

*Burgess Cellulose Company, Freeport, Ill. Address delivered before Iowa Newspaper Mechanical Conference, Des Moines, Iowa, May 1944.

ALONG with the thousand and one other factors that have a bearing on a well printed newspaper, it is my opinion in the light of recent events, that perhaps the most important today is the question of high moisture mats and their manipulation. Because many of our present day practices are based on opinions and experiences rather than on scientific facts, some of the things I say to you may seem highly controversial.

We all know that one reason high moisture is placed in newspaper dry mats is to obtain shrinkage, otherwise we would be unable to print on the present-day narrow newsprint rolls.

Based on common logic, laboratory experiments and many practical experiments any given moisture content should give the same amount of shrinkage regardless of the plant in which the mat is used, yet we know it does not, and sometimes will vary ¼ in. in two different plants in the same town having practically identical equipment. The answer must be that one plant is getting the maximum amount of shrinkage because of its method of manipulation and the other is not.

Factors Affecting Shrinkage

Let us examine a few of the manipulation factors that affect shrinkage. First, and the most inexcusable, is exposing the mat and allowing it to air dry before it is molded. It is elementary to say that a mat that is partly shrunk before molding is not going to shrink the printing surface to the same narrow width as a mat taken fresh from a protected package kept in an airtight, well-insulated storage box. Yet I have seen mats lay exposed to the air for three or four minutes while a form was being prepared for molding, or while some other duty was being performed.

Another factor is stretch of the printing surface during the molding operation, in other words, the ideal mold is one where the printing surface on the molded mat is the same width as the printing surface on the form immediately after the mold is made. Usually, stretch is caused by a lack of slippage in the cushion, illustrations too high in the form, or too much pressure. A combination of the three failures means plenty of trouble with lost or weak printing surfaces in the printing plates because of distortion, also a loss of shrinkage equal to the amount of stretch. It is only logic to say that the wider you stretch the printing surface, the more moisture you are going to need to bring the printing surface on the plate to the width you desire.

Slippage and Stretch

Usually, the best way to provide slippage, to minimize or eliminate stretch, is through the use of a three-piece molding cushion. What those three pieces should consist of will not be discussed here other than to state that in my opinion an ideal molding combination should be one with sufficient resiliency to get the finer detail and yet firm enough to develop sufficient density to iron out the solids without sealing the fibres of the mat. Too much density will usually make it more difficult to expel the moisture from the mold, sometimes to such an extent that it causes the laminations of the mat to separate in the scorching process when subjected to high temperatures, the moisture turning to steam be-tures, the moisture turning to steam before it can escape. Hence, the failure.

Asserts Excessive Density Causes Too Rapid Rate of Plate Solidification

Excessive density due to molding will also cause, in my opinion, a too rapid rate of solidification of the cast, particularly in the solid areas of the mold, because these areas being thinner and more compressed are more heat conductive. The rate of solidification determines the crystalline structure of the printing plate to a large degree. The proper density will give you a rate of solidification with small, reasonably smooth, compact crystals which will readily take the ink, resulting in smooth clean blacks and sharp printing. Too little density will slow down the rate of solidification as the mold is more on the insulative side, resulting in somewhat coarse formations, requiring more ink and impression to approach the results of the mold which had the proper density.

Holes Under Solids and Halftones

Many of you have had the experience of getting holes in the surface of the solids and halftones when casting plates. Sometimes these holes would not show up in the print until several thousand impressions had been run on the press because a thin skin of metal covered the hole which was immediately under the surface of the cast.

I have heard these holes called "gas bubbles" and many other names that I don't dare set down here. What I believe happens is that something takes place to disturb the rate of solidification. Many things can happen to interfere with the rate of solidification. There may be interference in the flow of metal from the pot to the casting box by faulty plungers, oxidization of metal in the throat, casting box not in line with the spout, liming up of the inside of casting box creating an uneven rate of cooling, improper scorching of the mold, and last but not least, excessive density in the mold induced by high pressures, stretch and lack of resiliency in the cushion.

Many of you are wondering what I have just said has to do with the announced subject of this talk, but I believe after you have had the opportunity of digesting it that you will find the problem is all one and closely related.

Scorching (or Drying) Operations

Now we arrive at the most important operation, which has a direct bearing on shrinkage and the quality of the plate from a surface variation standpoint. This is the scorching or drying operation—whichever you choose to call it.

In past years, because of the low shrinkage requirements, our only concern in the drying of molded mats was to provide a uniform distribution of heat and a uniform tension, because we had learned from hard experience that unless we expelled the moisture evenly over the entire area of the mold and provided a uniform tension over the entire area of the mold, concaves and surface variations were apt to result.

Since the advent of higher moistures and shrinkages we have learned that it is necessary to control very accurately drying temperatures and also drying time to provide a mold with sufficient shrinkage and proper reproductive qualities.

Drying temperature and length of drying time are co-related, as one has a direct bearing on the other and are both of equal importance.

Based on the drying and scorching facilities in actual use today, the general experience has been that the slower a high moisture mat is dried the more

(*Continued on Page 48*)

Equipment Layouts, just like machinery, become obsolete—

How to prepare a miniature layout to scale of a proposed new arrangement

By **MacD. SINCLAIR**

A FLOOR plan or equipment layout in a printing plant is something that should not be taken for granted — ever. The work flow in a department is of such prime importance in relation to costs that it should be under the supervising executive's scrutiny at all times. Equipment layouts, in common with production machinery, become obsolete. It is just possible that when the equipment was first placed in the department the volume and times-of-receipt-of-work were thought to be fixed. However, since that time the work coming into the plant has changed in character or there may be more of it. There comes a time in all plants when even a partial change in the position of the machinery might be desirable. Before a printing plant is to be moved into a new location or a department is to be shifted to another room, a miniature equipment layout can be utilized. Making such a layout provides you with an exact picture of the proposed new arrangement.

To many executives, the problem of contemplated changes causes them to avoid making them because they do not have definite method for planning *before* the changes are made. The only practical way in which the problem can be handled is by means of a miniature layout with movable pieces of cardboard, scaled down to size, to represent the equipment.

Why You Should Make Layouts

Mechanical executives are becoming more and more engineering minded. It is their business to know beforehand about a good many things connected with plant operation. Making an equipment layout isn't a bit different in principle than when your employer causes a "price blueprint" to be made to determine the selling cost of a job. Nor is it any different than the manufacturer who puts a composing machine or a printing press on paper before starting manufacturing operations. To bring it a little closer, we'll say it's no more difficult than laying out an advertisement.

Moving machinery can be and often is an expensive operation. Plant rearrangement should not be undertaken unless the moving expense is justified by the production savings to be made as the result of the contemplated moving about of the equipment into an efficient arrangement.

There isn't anything new about miniature equipment layouts. They have been used for years by architects, plant engineers, equipment manufacturers and some plant executives. It would seem, however, that their use by plant executives should be universal.

Since a mechanical superintendent or departmental foreman is supposed to know what he is talking about, a carefully worked out miniature equipment layout showing the proposed changes, the production benefits to be derived from the new arrangement and the expense of the change, will enable him to sell the idea to his boss in an effective way.

Why Check Layouts?

Some reasons for checking into your equipment arrangement are:

(1) Production doesn't flow smoothly — there may be doubling up of operations.

(2) There is a bottleneck in the work flow. This may be caused either by faulty arrangement of the equipment or it may be caused by the manner in which work comes into your plant. There may be no remedy for the manner in which work comes into the plant but you may be able to help matters by rearranging the equipment.

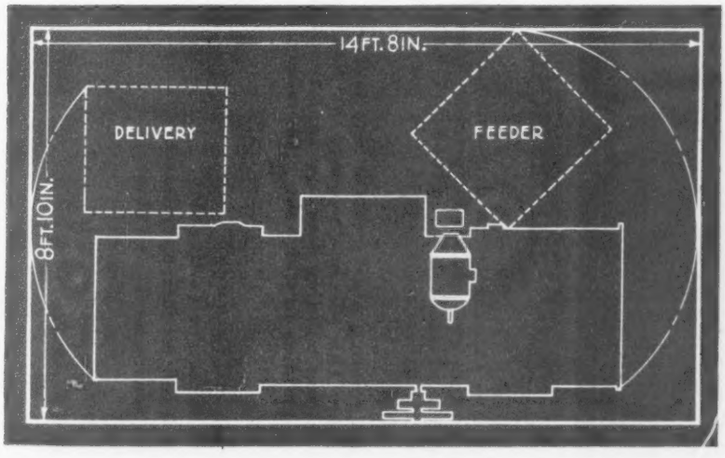
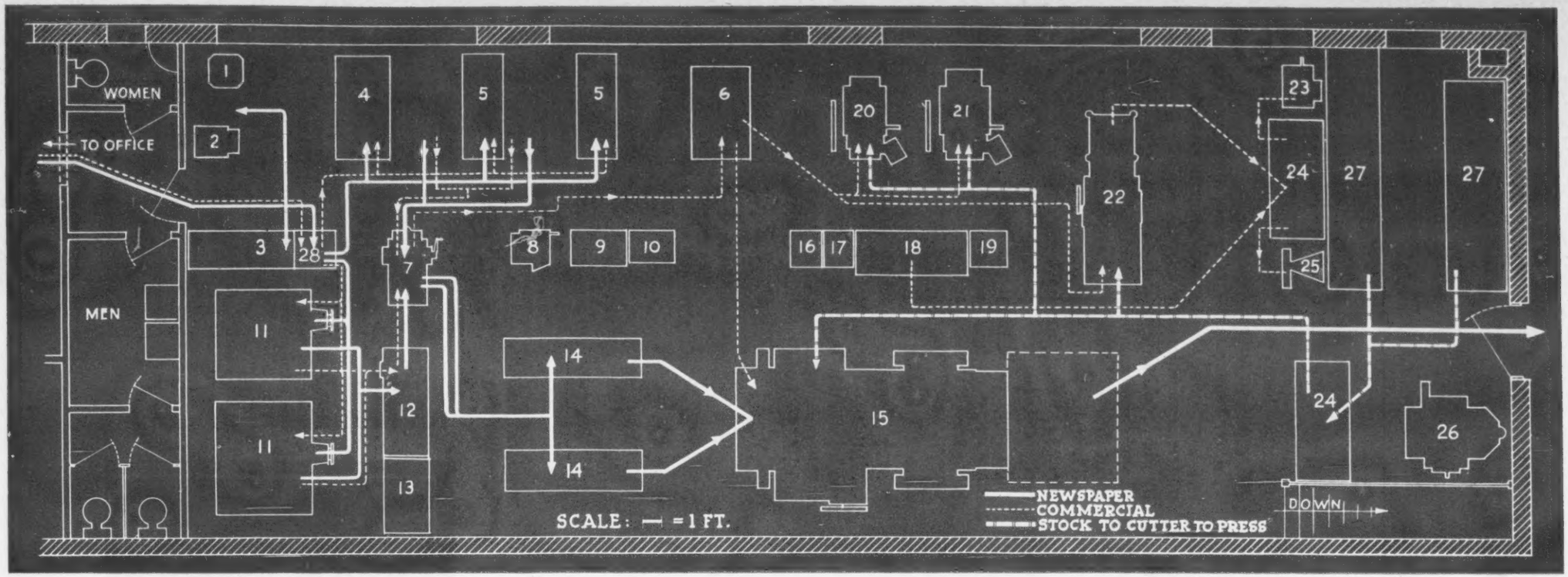


Fig. 1 — This diagram is intended to show how scaled-down or miniature pieces of cardboard are made for use in planning equipment work flow layouts. The rectangle represents the outside limits of the actual floor space required for a Miehle Horizontal Press with necessary swinging space for feeder and delivery. Measured from this standpoint, the press is 8 ft. 10 in. wide by 14 ft. 8 in. long. Scaled down, the cardboard "model" can be cut 2¼ in. wide by 3⅝ in. long. In the width reduction it will be noticed that the measurement is a flat 9 ft. Small fractional parts of a foot that do not reduce to ¼, ⅛, ½, ⅜ or ¾, may be disposed of in cutting the cardboard "models" by increasing the odd figure to the next highest fractional part of a foot as was done in this case.



THEORETICAL COMBINATION WEEKLY NEWSPAPER AND COMMERCIAL PRINTING PLANT

Fig. 3 — This theoretical diagrammatical representation of a combined weekly newspaper and commercial printing plant is complementary to the miniature equipment layout shown in the Fig. 2 halftone illustration. The reduction from the original scale drawing of ¼ in. per ft. is reduced in this illustration to ⅛ in. per ft.

Each printing plant seems to be a problem in itself when planning equipment layouts. This will be obvious to the plant executive — the variations occurring in lot and building dimensions and the volume and kind of printing executed. The building in which this plant is housed is 99 ft. deep by 29½ ft. wide. The printing plant exclusive of offices and toilet rooms measures 72 ft. long by 27½ ft. wide.

In this diagram, it will be noted that the inside wall is of solid construction without benefit of windows or outlets of any kind. This is not a serious objection inasmuch as fluorescent lighting furnishes comfortable illumination for the important seeing tasks of the printer. This has special reference to a printing plant which may be located on the first floor of a two-story building.

The work flow tracings are self-explanatory. The commercial, newspaper, paper stock and bindery flows are indicated clearly.

1—Metal Furnace
2—Stereotype Casting Box
3—Table for Stereo Equipment
4—Newspaper Type Cabinet
5—Job Type Cabinets
6—Job Imposing Table
7—Proof Press
8—Saw-Trimmer
9—Composing Room Work Bench
10—Cut Filing Cabinet
11—Line-casting Machines
12—Dump-Correcting Table
13—Machinist's Work Bench
14—Makeup Tables
15—38x52 Cylinder Press (Newspaper and Job) with Newspaper Folder
16—Job Chase Rack
17—Cylinder Chase Rack
18—Drying Rack and Stock Table
19—Ink and Roller Cabinet
20—10x15 Open Platen Press
21—12x18 Automatic Feeder Platen
22—17x22 Automatic Cylinder Press
23—Paper Drill
24—Unfinished Work Table
25—Stitcher
26—34½ in. Power Paper Cutter
27—Stock Cupboards
28—Foreman's Desk

Original equipment blue print from which this diagram was prepared, courtesy of American Type Founders

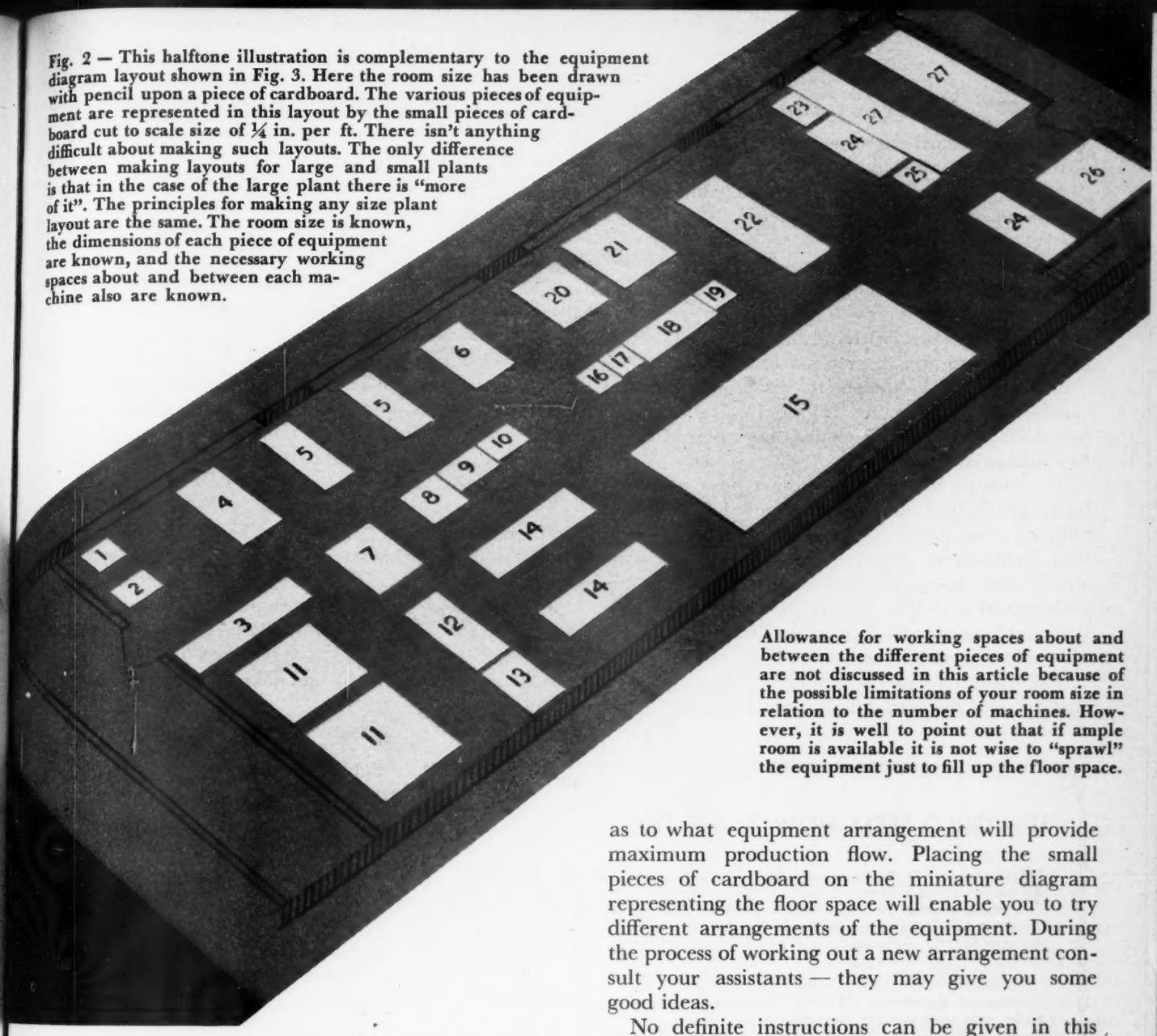


Fig. 2 — This halftone illustration is complementary to the equipment diagram layout shown in Fig. 3. Here the room size has been drawn with pencil upon a piece of cardboard. The various pieces of equipment are represented in this layout by the small pieces of cardboard cut to scale size of ¼ in. per ft. There isn't anything difficult about making such layouts. The only difference between making layouts for large and small plants is that in the case of the large plant there is "more of it". The principles for making any size plant layout are the same. The room size is known, the dimensions of each piece of equipment are known, and the necessary working spaces about and between each machine also are known.

Allowance for working spaces about and between the different pieces of equipment are not discussed in this article because of the possible limitations of your room size in relation to the number of machines. However, it is well to point out that if ample room is available it is not wise to "sprawl" the equipment just to fill up the floor space.

(3) It may be necessary to rearrange the equipment because of the installation of additional machinery.
(4) A department may have to be moved to another room in the plant.
(5) An entirely new location is contemplated, and
(6) Be critical. Check up your layout occasionally from a voluntary standpoint as a matter of good management to see if production costs can be reduced.

Making Equipment Layouts

In making an equipment layout, it is a good idea to draw the floor area to scale in outline with pencil on a sheet of 50 pt. (0.050 in.) cardboard. The preferable scaling down to workable size is ¼ in. per ft. For instance, if the floor area is 40 ft. by 50 ft., the size outlined on the diagram would be actually 10 in. by 12½ in. Graph paper sheets with ¼ in. divisions ruled both ways in light blue ink may be purchased at book and stationery stores.

By means of pieces of cardboard cut to proper scaled-down size, one for each piece of machinery in your plant, it is not a difficult matter to make an accurate layout which will give you a concrete idea as to what equipment arrangement will provide maximum production flow. Placing the small pieces of cardboard on the miniature diagram representing the floor space will enable you to try different arrangements of the equipment. During the process of working out a new arrangement consult your assistants — they may give you some good ideas.

No definite instructions can be given in this article respecting the *proper* allowable working spaces around each individual type of machine. Floor areas vary too much — each layout must be made to order according to the limitations of the floor area available.

If you are blessed with ample floor space guard against "sprawling" the equipment. From an efficiency standpoint too great distances between production units is as bad as too crowded machinery. Many printing plant executives who have been handicapped by cramped equipment are tempted to go to the extreme in planning a layout for new quarters.

The scale of ¼ in. per ft. seems to be the preferable one with which to work in making layouts. If ½ in. per ft. were to be used, the floor plan layout would become unwieldy. If the scale of ⅛ in. per ft. is used, some of the pieces representing the equipment would be so small that infinite care would have to be exercised in pushing them about with pencil rubber or some sharp pointed instrument when trying different arrangements.

Cutting the Cardboard

From cardboard cut as many pieces of each kind of machine as you have in the plant. Use 10 pt. (0.010 in.) cardboard. Of course, any thickness of cardboard will be suitable in case the 10 pt. board isn't available.

To furnish a concrete example of the size to cut pieces representing the machinery, we will assume that you want 10 pieces to represent either Intertypes or Linotypes (without auxiliaries). The approximate floor area of each machine is 5 ft. by 4 ft. 9 in. Using the ¼ in. per ft. scale, each piece of cardboard would be cut 1¼ in. by 1 13/16 in. wide. Space for the operator's chair is not allowed for in this measurement.

To illustrate by means of another piece of equipment, the actual floor space required for a Kelly Clipper press (open position) is 4 ft. 3 in. by 8 ft. 9 in. Reduced to approximate ¼ in. per ft. scale size in your layout, the cardboard representing the press would be 1 1/16 in. by 2 3/16 in. Loading, unloading and pressman's operating floor space not allowed for in this measurement.

The cardboard pieces should be cut of sufficient size to cover the actual floor space required for the normal extension and swinging out of machine parts, that is, in the case of a cylinder press for instance, include the floor space necessary for swinging the feeder and delivery to open position.

Scaling Down To Size

If a press is 11 ft. 5⅜ in. long in operating position but is fitted with swinging feeder and delivery, the actual floor space required to permit swinging out both feeder and delivery would be 14 ft. 8 in. The scale piece of cardboard therefore would be 3 11/16 in. long. Now, the normal operating width of this press is 4 ft. 11¼ in. To allow floor space for swinging out feeder and delivery, it is necessary to add 4 ft. 8¾ in., making the total floor space width 8 ft. 10 in. Therefore, the scale width of the cardboard would be 2¼ in. Please note that the scale dimensions for this particular press cover only the actual floor space of the machine itself — no allowance has been made for the operating floor space necessary to bring stock to and take it away from the press, nor the floor space required for the pressman to bring forms to and take them away from the press.

IT WOULD SEEM NOW IS THE TIME

WITH respect to the paper standardization problem, one can paraphrase the remark of a famous humorist: "Everybody talks about the weather but nobody does anything about it." *Printing Equipment Engineer* was glad to report the unanimous passage of the paper standardization resolution by the International Association of Printing House Craftsmen at its July Niagara Falls (Ont.) convention.

Extending our comment in the August issue we print the following: Then Educational Commission Chairman Douglas C. McMurtrie spoke briefly on paper size and weight standardization previous to introducing Arthur W. Brooks, WPB Printing and Publishing Division executive who discussed the subject. Mr. McMurtrie asserted there are 13 or 14 different standards in the paper industry, including those for box specifications.

During the course of his discussion, Mr. Brooks pointed out the confusion that is caused through use of the various standards. Said he: "For instance, New Yorkers buy their paper on the 1000 sheet basis while Chicagoans still use the ream or 500 sheet count. . . . The Government Printing Office uses the 1000 sheet count as standard practice and the U. S. Bureau of Standards had approved the decimal system a long time ago."

In advocating the 25 in. by 40 in. "yardstick" which represents 1000 sq. in,. Mr. Brooks said several steps in calculating the weight of quantities of odd-size sheets would be eliminated by converting computations to simple decimals. Under the decimal system, paper would still be made in standard sizes as now but the weight computations would be translated into the 25 in. by 40 in. basis (1000 sq. in.). All quantities would be figured on the 1000 sheet basis.

Mr. Brooks stated the trend toward the decimal system is marked. Apparently, the papermakers' objection to adoption of the decimal system is that "the industry isn't ready for it yet." The speaker asserted that if the paper industry opposes adoption of the decimal system, the printing industry should bring pressure to bear to enforce its adoption. When the proposal was first advocated, the change to the new standard would have effected a saving of 5% in pulp. But since revision of WPB Order L-120 has effected an estimated saving of 6% in pulp for paper manufacture, the proposal should be considered only from the standpoint of the consumer, or in other words, on its own merits.

Upon presentation of the resolution urging adoption of the decimal system for computing paper, the Craftsmen's convention passed it unanimously. In addition, the resolution had incorporated in it the suggestion that local Craftsmen's clubs devote at least one meeting per year to paper conservation.

Schultz Visits 9 Craftsmen's Clubs

IMMEDIATELY upon his induction into office as President of the International Association of Printing House Craftsmen, Walter F. Schultz appointed F. L. Ferris of the Capper Publications (Topeka, Kas.) chairman of a public relations committee.

Among the first items of interest to Craftsmen issued by Chairman Ferris are these:

Immediately following the Niagara Falls (Ont.) International Craftsmen's convention in July, President Walter Schultz paid official visits to Craftsmen's Clubs in Buffalo, Toronto, Ottawa, Montreal, Cleveland, Columbus, Cincinnati and St. Louis. A testimonial dinner was held by at least one club while St. Louis Craftsmen arranged an afternoon of golf as part of the club's reception to the president.

The St. Louis Club of Printing House Craftsmen is now a member of the Eighth District as a result of approval granted by the International Board of Governors. The Eighth District includes Des Moines, Omaha, Topeka, Kansas City, Waterloo and St. Louis. The Seventh District is now composed of the Memphis, Central Illinois and Nashville clubs.

New Chairman of the Educational Commission, E. G. (Mannie) Hubbell recently sent suggestions to local clubs for September meetings. Included were condensed highlights and salient points covered by Mr. Hubbell and Herman Slater, new chairman of the Research Commission, at the recent Niagara Falls convention.

Photographic reproductions of commercial work done on newsprint coated with white-base ink, in plant of Brigdens, Ltd., Toronto, Ont. This expedient employed because of fine paper shortage.

Advertising with Newsprint

— Paper coated two sides with special white-base ink before printing by letterpress and offset

By OLLIE WATSON*

**Manager Printing Department, Brigdens Limited, Toronto, Can.*

A FEW months ago when the Canadian War Time Prices and Trade Board placed restrictions on the use of fine papers for advertising purposes, our volume of creative mail order and display production was reduced 65%. This caused a serious situation in our business, because it not only affected our printing department but our photographic, art, copy planning and engraving departments.

After appealing this drastic order-in-council because of the hardships it placed upon all creative printers, an amendment was made permitting the use of 75 pounds of fine papers and one ton of newsprint per customer per calendar quarter. The fine paper quota gave the customer a very limited supply of folders or booklets—much too inadequate for his needs after considering his investment in art work and engravings. If we took advantage of the newsprint quota of one ton per calendar quarter for displays the weight of the mounting board, easels and containers had to be included in the maximum weight allowed per quarter. The customer's quota was completed for the term if we used say 200 lbs. of newsprint and 1800 lbs. of board, easels, etc.

We were faced with the problem of converting the raw news stock to a reasonably respectable sheet for creative color work. Under test in sunlight we found that the newsprint turned yellow in a few hours time, but after applying a special base ink to both sides of the sheet the fading time was extended to several weeks, and then by no means to a degree found in the raw stock. The rapid discoloring of raw news made the production of all color work very unsatisfactory.

Convinced of the futility of doing color work on newsprint we again appealed to the Board for some measure of relief. After lengthy consideration permission was given to have a limited supply of newsprint coated one side only by the coating mill. This supply of coated one side news made it possible for us to do some displays in color. But we found the coating very sensitive under the thumb-test rule of wetting the thumb, pressing it hard onto the coating and suddenly pulling it apart, thus lifting a liberal amount of the chalk from the face of the sheet.

To have an ink that would work on paper under such conditions meant that the color strength had to be at its maximum, but had to be soft in body to prevent picking. Another problem on this mill coated sheet was the curl. With a weak body stock and a heavy layer of coating there is a decided pull on the under side of the sheet, making press delivery difficult. We solved this inconvenience by having the grain of the paper run at right angle to the cylinder.

Coating Both Sides of Sheet

Our next problem was to treat the raw newsprint with a coating on both sides of the sheet. This gave us a greater supply of stock for booklets, catalogues, displays, streamers and many other advertising pieces. The finish resembles in feeling a sheet of standard suede or kid finish coated, but more flexible of course, because of its weak body content.

(Continued on Page 47)

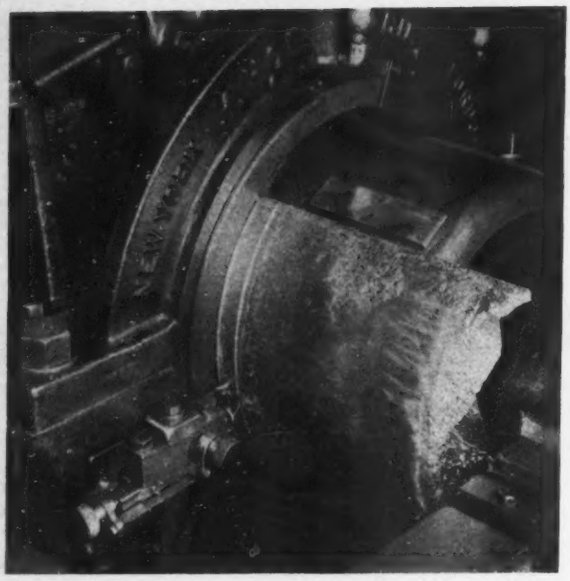


Fig. 1.—View of section of stereotype plate finishing machine in plant of Wilkes-Barre (Pa.) *Times-Leader* and *Evening News*. Also shown is an auxiliary cutting tool by means of which it is possible to remove bolster metal from the folio number edge of the stereotype plate in case the page is an open one and the mat has shrunk more than a solid page in width, in which case the regular plate saws cannot cut off all the bolster metal.

AUXILIARY TOOL *mounted on newspaper stereo plate finishing machine removes bolster metal on open page plates, mats for which shrink more than others*

By EARL COLE*

*Stereotype Department Foreman, Wilkes-Barre (Pa.) *Times-Leader* and *Evening News*.

IN the *Times-Leader* and *Evening News* plant we had a peculiar condition in stereotype mat shrinkage to overcome so as to eliminate bolster metal from the edge of certain plates and get away from removing the metal by hand from the plate. By installing an auxiliary cutting tool on our plate finishing machine, as shown in the illustrations, any bolster metal which would remain upon the tail end of the plate after the plate has been trimmed to width in the finishing machine is removed easily. On open pages, the mat shrinks to such an extent that regular trimming knives do not remove all of the bolster metal. Hence, the need for the device described here.

Before describing the auxiliary plate trimming device which helped us overcome this condition, we will describe the equipment with which we work.

We do not have Autoplate chases. The bolsters at the top and bottom of the chases are ¼ in. wide and on the side they are ⅜ in. wide.

We have two hand-operated Hoe double-cooled casting boxes and a Hoe plate finishing machine. We have a Sta-Hi forming machine with preshrinkage attachment to aid in reducing the width of pages. Nevertheless, considering the apparent lack of shrinkage uniformity in mats, the man on the block sometimes in receiving an open page plate, would be faced with the job of doing considerable hand planing on the tail end of the plate.

It is common knowledge, of course, that solid pages, such as want ad or liner pages, do not shrink in the mat as much as the open pages. Add to this the fact that sometimes as much as 6 pts. space existed between one end of the footstick and the side of the chase in the made-up form. Just a little excess length in each slug when multiplied for each column across the form amounts to a considerable handicap in securing constant page width. Of course, there are other factors contributing to excessive page width. In the case of the want-ad pages, the mats do not shrink as much as fairly open pages. Thus, in the case of the open pages, some of the bolster metal remains on the plate and is not removed by the finishing machine saws. It is for this reason that we installed the auxiliary cutting tool shown in Figs. 1 and 2.

We cut all mats with the folio number on the tail and all plates are pushed firmly against the stop on the finishing machine before being cut and shaved, so that any variation in page width comes on the outside or tail edge of the plates.

We now order our mats with sufficient moisture so they will shrink properly for the wide pages. With the auxiliary cutting tool which we have installed on the finishing machine we do not have to worry about the pages which shrink more than the solid pages.

The stereotype plate in our particular machine, is not fully contained in the cylinder. The face of the plate protrudes ¼ in. on each side of the cylinder. This handicap to the pressman (in that the outside rib on each side of the plate is slightly higher than the inner portion of the plate) proved to be a good feature in taking care of the excessive shrinkage in some of the plates.

As can be seen by looking at the accompanying illustrations, the auxiliary cutting tool is mounted on the machine to engage the plate in about the first inch of travel. The lathe-like action of the cutter is finished at just about the time the saws are starting to cut the plate.

The auxiliary cutting attachment which has been installed on our plate finishing machine somewhat resembled the tool rest of a lathe. The attachment is fitted with two knurled screw heads for two-way adjustment of the tool.

As the plate enters the cylinder, the operator can readily see whether or not it will be necessary to use the cutter. If it is necessary to use the cutting tool, the tool is brought to position by turning the knurled knob *1*, Fig. 2. When the V-shaped pointer *2* reaches a line scribed on the stationary section or base of the cutting attachment, the cutting depth has been established. The other knurled screw head *3* regulates the lateral travel of the knife. Thus the cutting tool can be set to take care of either slight or great shrinkage. The cutting tool can be removed from the holder quickly for sharpening. Both screws regulating adjustment of the cutting tool are fast-pitch so that little time will be required to adjust the tool itself.

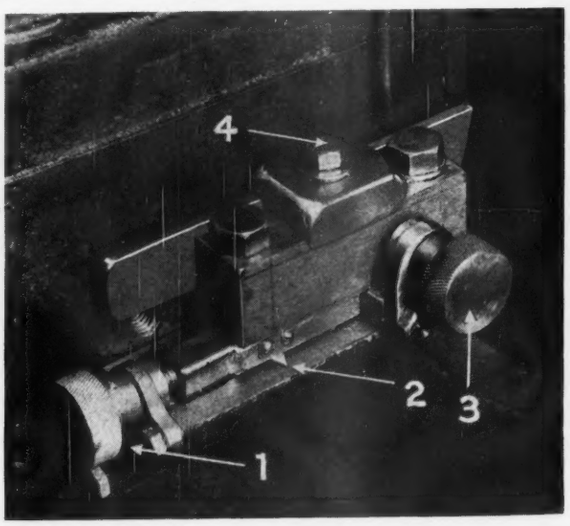


Fig. 2.—Close-up view of auxiliary stereotype plate-cutting tool installed on plate finishing machine in plant of Wilkes - Barre *Times-Leader* and *Evening News*. At *1* is indicated the knurled head of a fast-pitch adjusting screw which regulates the depth of cut to be taken into the plate by the tool in order to remove bolster metal. At *2* is indicated the pointer which guides the operator in adjusting knurled head *1* for depth of cut to be taken by the tool. At *3* is knurled head for the screw by means of which the cutting tool can be adjusted laterally. By loosening nut *4* the tool can be removed for grinding.

Equipment and Supplies . . .

Improved Models Available

IMPROVED models of Monomelt equipment for the direct melting and feeding of type metal to composing and casting machines are again available, according to officials of the Monomelt Company.

Bulletins and descriptive literature on improved Monomelt systems may be obtained direct from the company, 1611 Polk Street, N.E., Minneapolis, Minn.

Portable Platform Prevents Street Blocking

PRINTING plant executives are always interested in workflow applications and in materials handling methods. For that reason, we are presenting the context of a bulletin published by Elwell-Parker Electric Co. The plan for unloading trucks on a narrow street may have some interest to printing plant executives confronted with similar conditions.

The problem of unloading motor trucks on a narrow and congested street has been solved by R. J. Reynolds Tobacco Company, Winston-Salem, N. C. When incoming loads were backed up at right angles to the receiving room door they blocked traffic badly and were a possible source of nuisance accidents. The Reynolds plan made it possible for the delivery truck to park lengthwise of the street for unloading, by building a rugged but portable loading and unloading platform (Fig. 1) which can be kept inside the building and out of the way when not in use.

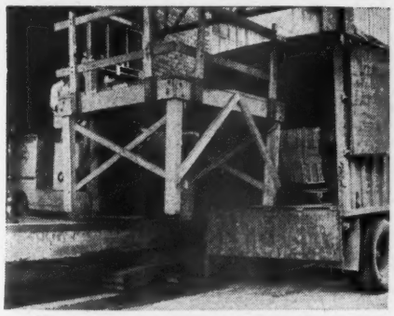


Fig. 1

When a loaded truck arrives at the plant the driver parks near the entrance, close to the wall, and lowers the tailgate. Then an Elwell-Parker Fork Type Power Truck picks up the portable platform and spots it on the pavement so that it provides a continuous runway from the floor of the truck to the floor of the receiving room, (Fig. 2).

The unloading crew brings in an empty skid on a conventional hand truck. The skid is loaded by hand, pulled into the receiving room, set down just inside the door, picked up by the power truck and transported to destination. A typical load is die-cut and ready printed blanks for cigarette cartons, in bundles weighing 55 lbs. and containing 500 cartons each. An average skid load consists of 70 bundles, or 3850 lbs.

Fig. 2

Illinois Newspaper Mechanical Conference

The Illinois Newspaper Mechanical Conference will be held at Hotel Broadview, East St. Louis, Ill., on Saturday and Sunday, October 21 and 22.

So far as announced, the program will consist principally of departmental meetings, the chairmen for which will be: Composing Room, Earl Anderson, Rockford Consolidated Newspapers; Pressroom, Ellsworth Bailey, Alton (Ill.) *Evening Telegraph*; Stereotype, Harley Mintun, Peoria *Star*; Engraving, Wilbur Augspurger, Peoria *Star*, and Earl Ford, Bloomington (Ill.) *Daily Pantagraph*; Machinists, Cliff Entler, Decatur (Ill.) Newspapers and Pat Patterson, East St. Louis (Ill.) *Journal*.

Some of the Ink Manufacturers and Their Representatives Got Together Informally at the Niagara Falls (Ont.) International Craftsmen's Convention, July 1944

(Left to right): William Blackwell, Ault & Wiborg, Toronto; Jack Powers, IPI, Boston; L. W. Claybourn, J. W. Clement Co., Buffalo, N. Y.; Joseph Lewis, Sinclair & Valentine, Toronto; Alex. Grey, Dominion Printing Ink Co., Toronto; A. J. Math, Sinclair & Valentine, New York; Bob Roosen, H. D. Roosen Co., Brooklyn; Charles R. Conquergood, Canada Printing Ink Co., Toronto; (slightly to the right and back of Mr. Conquergood) Fred August, Triangle Ink Co., New York; Walter Wasmer, H. D. Roosen Co., Brooklyn; David H. Sloane, Secretary, National Association of Printing Ink Makers, New York; Willard Smith, Fred'k H. Levey Co., New York; Robert McClelland, Fred'k H. Levey Co., New York; Ollie Fricke, Sinclair & Valentine, Dayton, O. The last gentleman on the right was not identified.

In the pressroom of the Port Huron (Mich.) *Times-Herald*, visiting newspaper executives were snapped by staff photographer. Left to right: President Geo. H. Fuller; Director Levi E. White who served as chairman of the local committee on arrangements; Millard Shirts, *Times-Herald* pressroom superintendent; Director Oscar Gneuhs; Director Horace Parker; W. L. Phillips, a member of the *Times-Herald* composing room, and Program Chairman Deo A. Padgett, all of whom came to see what could be done by way of substitute for live mechanical conference which has been postponed.

Great Lakes Newspaper Mechanical Conference Substitutes Service for Meeting

IN compliance with the general request of ODT that conventions for the balance of the year be cancelled, the first scheduled Great Lakes Newspaper Mechanical Conference which was to have taken place at Hotel Cleveland in Cleveland on October 8 and 9, has been cancelled. Officers and directors of the Conference met in Port Huron, Mich., on Sunday, August 20, however, to see what activities could be substituted for the conference. The executives in attendance were guests of W. W. Ottaway, president and publisher of the *Times-Herald* at Gratiot Inn.

Levi E. White, a conference director and stereotype superintendent of the Port Huron *Times-Herald*, was local chairman of the committee on arrangements for the meeting. He was assisted by Frank E. Marengo, composing room superintendent; Millard Shirts, pressroom superintendent, and W. L. Phillips, all of the *Times-Herald*.

Officers present at the meeting were: President George H. Fuller, stereotype superintendent, Cleveland *Press*; Secretary A. P. Oberg, composing room superintendent, Flint (Mich.) *Journal*. The following directors were present; Levi E. White; Oscar Gneuhs, mailing foreman, Cleveland *News*; Horace Parker, Stereo-Press Superintendent, Richmond (Ind.) *Palladium-Item*; Roy English, photo-engraving superintendent, Detroit *News*; also present were Program Chairman Deo A. Padgett, composing room superintendent, Cleveland *Plain Dealer*, and MacD. Sinclair, editor of *Printing Equipment Engineer*.

First Vice President Lester Yeager, production manager of the Indianapolis *Star*, and Director Frank Duncan, mechanical superintendent of the Portsmouth (O.) *Times*, could not attend the meeting.

The Board of Directors decided that in lieu of a live conference, a service bureau would be set up to assist newspaper mechanical executives with some of their mechanical and technical problems. The matter was gone into thoroughly in order to assure members of dependable replies which will be useful in solving their problems. It was also decided to issue exhaustive bulletins upon chosen mechanical subjects at intervals. President Fuller will announce committee appointments later. In this way, the Board feels that interest in the Conference will be maintained until such time as a live conference can be held.

In the Port Huron (Mich.) *Times-Herald* composing room this group was snapped by *Times-Herald* staff photographer. Left to right, they are: Director Roy English; Frank E. Marengo, *Times-Herald* composing room superintendent; MacD. Sinclair, editor of *Printing Equipment Engineer*, and Secretary-Treasurer Al P. Oberg. Occasion was directors' meeting of Great Lakes Newspaper Mechanical Conference.

EMPLOYMENT
AND SERVICE

Employers, production and mechanical executives may insert notices in this department. Items may pertain to the following subjects: "Executive Wanted," "Association or Partnership Wanted," or "Position Wanted," readers referring to subjects of a personal nature such as obtaining information about addresses of executives, supplying copies of technical articles and magazines, patents for sale or requests for contacts for developing and/or financing of inventions. Any reasonable request by an executive on a subject other than those listed will be granted cheerfully.

Notices may be printed under the following regulations: First insertion (maximum six lines) is free of charge. All subsequent insertions of the same item subject to a charge of 75c per line in advance.

Address all communications with box number to *Printing Equipment Engineer*, 1276 West Third St., Cleveland 13, Ohio.

CHIEF ENGINEER FOR PRINTING MACHINERY MANUFACTURER — To report to president of substantial company, well known and ably managed, with several subsidiaries, and sells nationally. To be responsible for direction and supervision of all engineering activities including machine design, research and development. Will build up and direct an efficient engineering department to keep pace with the company's postwar growth. Must have successful experience as head of an Engineering Department with preference for experience in printing machinery or high speed special machinery in related fields. Must have executive and administrative ability and be cost-minded and quality-minded. Graduate Machinery Engineering degree, or equivalent in experience, desirable. This important post relates entirely to postwar, peacetime activities of company. Reply Box 210, *Printing Equipment Engineer*.

COMBINATION COMPOSITOR AND OFFSET PLATE MAKER—Wants position. Deep etch and albumen; 21 years' experience as foreman and superintendent. Available for position in South or West. Reply Box 211.

Printing Executives Here and There, Snapped at Recent ANPA Mechanical Conference in Cleveland and International Craftsmen's Convention in Niagara Falls, Ont.

1.—A. Gordon Ruiter, Superintendent, Letterpress Dept., Forbes Litho Co., Boston, is being congratulated upon his election to the Third Vice Presidency of the International Craftsmen's Association at Niagara Falls Convention by John (Jack) Reay of the Columbus (O.) Club of Printing House Craftsmen.

2.—Emil Bendow, Linotype Parts Co., and D. Philip Young, York (Pa.) *Dispatch.*

3.—Edward T. Christensen, editor of International Craftsmen's *Share Your Knowledge Review*, chats with Phil Mann of York Composition Co., York, Pa., at Niagara Falls Craftsmen's convention.

4.—Group taken during Fifth District Conference breakfast at Hotel General Brock, Niagara Falls, Ont., during International Craftsmen's convention. Left to right: Neal Wendling, Stanley Mfg. Co., Dayton, O.; Ollie Fricke, Fifth District Representative and Dayton (O.) Manager for Sinclair and Valentine Co.; Marcus Overstreet, Johnson & Hardin Co., Cincinnati; Starr L. Wade, president, Detroit Craftsmen's Club.

5.—Frank Lagueruela, president of the Havana (Cuba) Craftsmen's Club, poses amiably for photographer at Niagara Falls Craftsmen's Convention. (Photo Sesnan, American Printer.)

6.—John M. Masterson, Asst. to President, Wood Newspaper Machinery Corporation; Edw. V. Hintenach, Composing Room Supt., and Peter P. Loesch, Mechanical Superintendent, Erie (Pa.) *Daily Times.*

7.—Walter J. (Bud) Burns, Composing Room Superintendent, and Production Manager C. W. (Bill) Govier, Production Manager, Buffalo (N.Y.) *Courier-Express;* Oran C. Smith, Ludlow Typograph Co.

8.—E. W. Worthington, Chief Engineer, Goss Printing Press Co.; Roy English, Photo-engraving Supt., Detroit *News;* W. W. Southam, Production Manager, Vancouver (B.C.) *Daily Province.*

New England Conference Will Be Devoted To Wartime and Postwar Problems

WARTIME and Postwar problem discussions will prevail at all sessions when members of the New England Newspaper Mechanical Executives' Association hold their sixth annual conference at Hotel Statler, Boston, on Saturday and Sunday, October 14 and 15.

George F. Marshall, production manager of the Portland (Me.) *Press-Herald*, as program chairman, his committee and clinic chairmen are arranging a program that will provide all executives in attendance an opportunity of listening to and participating in discussions.

Registration will open Saturday afternoon.

The departmental clinics, heretofore held on Sunday morning will be split up so that those desiring may attend more than one session. At 10 o'clock Sunday morning the stereotype, tubular, engraving, machinist and flatbed clinics will be called to order. At 1 o'clock Sunday afternoon the press and composing room sessions will start. For some time the men have expressed a desire to have the program arranged in order that they could take in more than one clinic and the committee feels that the above plan is a good start towards that accomplishment and also feel that such a move will provide more lively and interesting discussions.

Glendon S. Magoon is President of New England Newspaper Mechanical Executives' Association. Regularly, he is mechanical superintendent of the Fitchburg (Mass.) *Sentinel*.

President Glendon S. Magoon, mechanical superintendent of the Fitchburg (Mass.) *Sentinel*, will preside at the banquet scheduled for 6 o'clock, Sunday evening. Routine business and election of officers will finish off the serious end of the business. Following this, the committee will present some well known speaker on world affairs.

The addition of the flatbed press clinic and the splitting up of the clinics are the only two new features in this year's program. After a complete study by the directors the flatbed press clinic was added, showing that there are still many such presses being operated in the New England area.

The program committee is as follows:

George F. Marshall, Portland (Me.) *Press-Herald*, chairman.

Bernie F. Garrity, Hartford (Conn.) *Times*; Francis M. Britton, Nashua (N.H.) *Telegraph*.

Clinics and Clinic Chairmen

Composing Room—Wm. H. Porter, mechanical superintendent, New Haven (Conn.) *Register*.

Press—Edward V. Murphy, pressroom superintendent, Lawrence (Mass.) *Eagle-Tribune*.

Stereotype—Frank O. Bigelow, superintendent of stereotype department, Boston (Mass.) *Post*.

Engravers—Charles T. Williamson, day foreman, engraving department, Boston (Mass.) *Post*.

Machinists—Robert Miller, chief machinist, Providence (R.I.) *Journal-Bulletin*.

Tubular—Henry Maxwell, foreman, press - stereo department, Waterville (Me.) *Sentinel*.

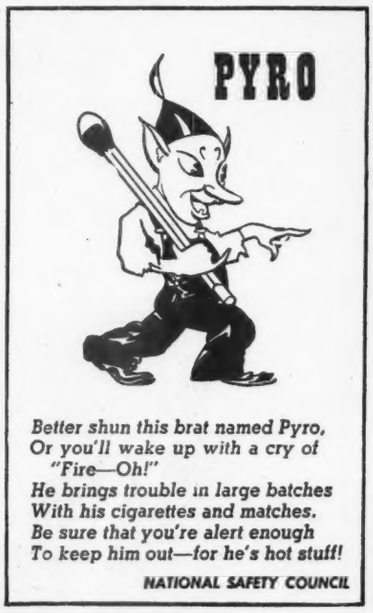
Flatbed—Benjamin Zaiger, press foreman, Chelsea (Mass.) *Evening Record*.

George F. Marshall, production manager of the Portland (Me.) *Press-Herald-Express*, is program chairman of sixth annual mechanical conference of New England Newspaper Executives' Association.

Officers and Directors

President, Glendon S. Magoon, Fitchburg (Mass.) *Sentinel*; vice president, Russell H. Costello, Lewiston (Me.) *Sun-Journal*; secretary-treasurer, Walter C. Crighton, New London (Conn.) *Day*. Directors—Francis M. Britton, Nashua (N.H.) *Telegraph*; George L. Green, Providence (R.I.) *Journal*; Bernie F. Garrity, Hartford (Conn.) *Times*; Joseph W. Addison, Hartford (Conn.) *Times*; Richard M. Fitzgerald, Worcester (Mass.) *Telegram-Gazette*; John J. Mahoney, Holyoke (Mass.) *Transcript-Telegram*; Herbert T. Stanger, *Christian Science Monitor*; George F. Marshall, Portland (Me.) *Press-Herald-Express*.

MEET THE AXEES
The Gremlins of Accidents


PYRO
Better shun this brat named Pyro,
Or you'll wake up with a cry of
"Fire—Oh!"
He brings trouble in large batches
With his cigarettes and matches.
Be sure that you're alert enough
To keep him out—for he's hot stuff!
NATIONAL SAFETY COUNCIL

Chromium Plating of Metals

Glycerine is finding increasing uses in processes for electrolytic polishing of metals and in plating methods. A recent addition to the list is a procedure for chromium plating metals such as steel parts for linotype machines described in U. S. Patent 2,327,676 granted to J. W. Spence. According to the specifications, the material to be plated is placed in a boiling cleaning solution, in which it is alternately made cathode and anode. After removal from this solution the material is rinsed and then treated as an anode in a bath containing 66% sulfuric acid, 5% glycerine, and water. It is then electrolytically plated with chromium in a chromic acid plating bath while heated, and then placed in a mass of slowly cooling molten material such as lead. Intermediate coatings of cobalt, copper or nickel may be used.

EXECUTIVE ¶s

J. Homer Winkler, well known throughout the United States as an authority on printing plates and the printing processes, became associated with Battelle Memorial Institute, Columbus, Ohio, on September 1. In his new association, he will be engaged in printing research and will serve as liaison man between Battelle and the Graphic Arts Industries. For 15 years, Mr. Winkler has been associated with Ace Electrotype Co., Cleveland, and for several years has been the company's assistant manager. He was one of the founders of Printing Plates

J. Homer Winkler

Research, Inc., a group of electrotyping companies formed some time ago to engage in purely organized research to improve the platemaking processes. He has been its secretary-treasurer. Mr. Winkler has spoken before various Graphic Arts groups throughout the country upon numerous occasions. He has done considerable writing for the trade press upon technical subjects related to platemaking and until accepting his new duties he was associate editor of *Printing Equipment Engineer*. On August 22, the Cleveland Craftsmen's Club tendered him a testimonial dinner, at which time he was presented a gift in appreciation of the fine service rendered the club. Among other accomplishments, Mr. Winkler participated in the development of heat-treated electrotypes which results in a harder and longer wearing plate. He is a graduate of George Washington University with a degree of B.S. in Ch.E.

For outstanding service to the war production program, Joseph L. Auer, of Pelham, N. Y., vice president and general works manager of R. Hoe & Co., Inc., has been awarded the War Department's Ordnance Citation, the eleventh such citation issued to civilians since the war broke out. Signed by Major General L. H. Campbell, Jr., Chief of Ordnance, United States Army, the citation states that "by the exercise of his initiative and ingenuity" Mr. Auer "has made a marked contribution to the war production program." The award came for Mr. Auer's services as assistant-chairman of the Integrating Committee, Major Calibre Anti-Aircraft Carriage Industry, from June 1942 to the time the commit-

Joseph L. Auer

tee became inactive in March 1944. Mr. Auer now is assistant-chairman of the Mobile Carriage Recoil Mechanism Committee. Mr. Auer lives at 541 Second Ave., Pelham, N. Y. He is a member of the American Society of Tool Engineers and the American Society of Metals.

L. F. Weyand, general sales manager of the Minnesota Mining & Manufacturing Company's Adhesive and Coatings Division since 1936, has been promoted to general manager of the Division. Mr. Weyand has been associated with the

L. F. Weyand has been promoted to general manager of Minnesota Mining & Mfg. Co.'s Adhesive and Coatings Div.

Minnesota Mining & Manufacturing Company for 28 years.

Mr. Weyand will continue to maintain headquarters at the 3-M factory in Detroit. The company's executive headquarters are in St. Paul, Minn.

Summerfield Eney, Jr., well known throughout the country as an exponent of better craftsmanship in letterpress and lithographic printing in particular, passed away Saturday, August 19 at his home in Woodstock, New York. He was 63 years of age. For a time, Mr. Eney was employed by Harris-Seybold-Potter Company, but in 1928 he joined up with Champion Paper & Fibre Co. He remained with this company until his retirement in 1942. He was a finished speaker upon technical subjects and addressed many groups throughout the Graphic Arts Industries.

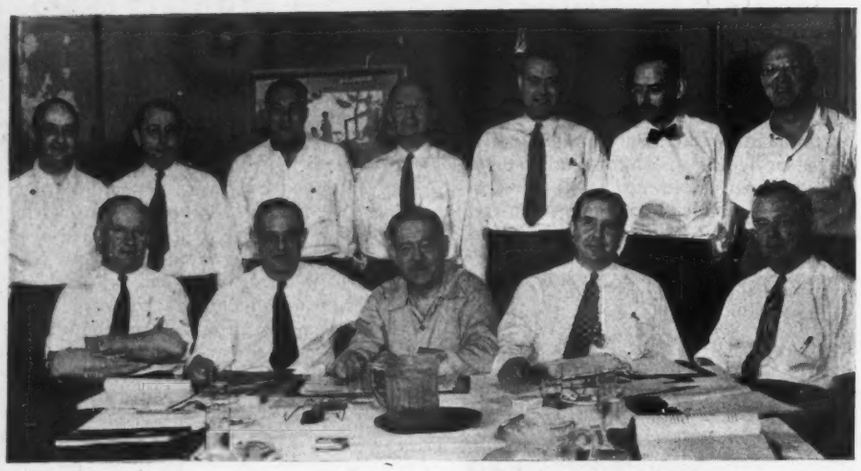
The many friends of Private Louis I. Melcher will regret exceedingly his passing on July 2 while engaged in the battlefield of France. He was fighting

Pvt. Louis I. Melcher of Chicago Printers Machinery Works lost his life in France recently.

with the Catus Division, United States Army Infantry. He was a brother and business associate of Felix A. Melcher of the Chicago Printers Machinery Works.

George C. Andrews, manager of the New York office of The Challenge Machinery Co., passed away suddenly, Sunday August 13 in the Paul Kimball Hospital at Lakewood, N. J., following an emergency operation. Mr. Andrews was 76 years of age. For eleven years, he was mayor of Ship Bottom, N. J., and when not at Ship Bottom, his residence was at Rutherford, N. J.

On August 20, two Harris-Seybold-Potter Company executives, Wm. Guy Martin, Vice President in Charge of the Western Sales District of the company, Chicago, and Maynard L. Mann, Assistant to the President left to make a survey of market conditions and methods of operation on the Pacific Coast. Mr. Mann has just returned from making a similar survey in Texas. The West coast survey will be made in connection with the recently announced Harris-Seybold sales integration policy under H. A. Porter, Vice President in Charge of Sales for both divisions of the company.



Executives attending sales meeting of Harris-Seybold-Potter Co., in Cleveland recently. (Left to right, front row): Wm. Guy Martin, Vice President, Chicago, Western District; J. W. Valiant, Vice President, New York, Eastern District; H. A. Porter, Vice President in Charge of Sales, Cleveland; John C. Dabney, Assistant Manager of Sales, for Harris-Seybold-Potter; A. T. Walker, Central District Manager.

(Back row, left to right): Glenn D. Baber, Asst. Manager, Seybold Div.; Horace R. Baker of the company's advertising agency; Louis R. Beck, Sales Promotion Manager; A. S. Holdford, Sales Manager of the Chemical Div.; Maynard L. Mann, Atlanta, Southern District Manager; Hedley Prout, Toronto, Vice President and Manager, Harris-Seybold-Potter Co. (Canada) Ltd. Horace R. Baker (not shown) of the company's advertising agency, participated in the meetings.

On August 11 and 12 sales executives of the Harris-Seybold-Potter Company met in Cleveland at a conference called by H. A. Porter, Vice President in Charge of Sales. Announcement was made of the integration of Harris and Seybold sales under the direction of Mr. Porter. The new policy of integration of sales of the two divisions of the company brings J. C. Dabney, Sales Manager of the Seybold Division to the home office at Cleveland as Assistant Manager of Sales of the company. Mr. Dabney will continue to be in charge of the sales of the Seybold Division, in addition to his new duties connected with Harris.

Mr. Dabney came with the company five years ago as Seybold Division Sales Manager. During the war he has handled the contacts for the Divisions' war work. Prior to his affiliation with Harris-Seybold, Mr. Dabney had been a sales and marketing executive with the Standard Oil Company of Ohio, located in Cleveland.

The interest displayed by printers throughout the country in offset lithography was viewed as forecasting further development. Printers and lithographers were given assurance that Harris-Seybold-Potter will enter the period ahead fully prepared and with a forward-looking program.

R. G. Wingerter, for the past six years an industrial engineer for The Timken Roller Bearing Company has been appointed Assistant Chief Engineer for the Industrial Division. Wingerter is an honor graduate of Wayne University (Detroit, Mich.) and holds a Bachelor of Science degree in Mechanical Engineering. He is a member of the Society of Automotive Engineers, the Detroit Engineering Society, a board member of the Canton Junior Chamber of Commerce and the Jay-teen Association.

A three month trip to Latin America has been planned by Louis A. Lara, Export Manager of the J. M. Huber Company. Mr. Lara will cover Mexico, Colombia, Ecuador, Peru, Chile, Uruguay, Argentina and Brazil. Mr. Lara will bring to the attention of agents and distributors information about new Huber products as well as the new U. S. Government regulations regarding use of carbon black. Mr. Lara was born in Venezuela and came to the United States when he was 14 years old. He attended the college of Business Administration at New York University and speaks Spanish, Italian and Portuguese. He joined the J. M. Huber Company as Export Manager in 1933 and is working towards a more stable export policy.

Institutes Technical Service

Walter Huber, formerly of J. M. Huber, Inc., has announced the institution of a technical and advisory service to the Graphic Arts Industry. He is operating from an office at 257 Fourth Ave., New York 10, N. Y., and from a laboratory at 202 East 44th St., New York 17, N. Y. Mr. Huber states that while this service is directed primarily at the printing field, he is not confining his efforts to it. His first assignment came from an industry not related to the Graphic Arts field.

Joseph Morningstar, President of Paisley Products, Inc., has announced the appointment of Laurent J. LaBrie as technical director. He is a graduate

Laurent J. LaBrie is Technical Director of Paisley Products.

Chemical Engineer, receiving his B.S. at the University of Pennsylvania.

Mr. LaBrie was formerly Chief of Heavy Chemicals Unit, Office of Price Administration, serving from 1942 to 1944.

The New Pressroom "Pet"

An eight page illustrated folder together with swatches of Spherekote glass bead coated tympan cover for rotary, cylinder and platen presses has been published by Minnesota Mining & Mfg. Co.

GET EQUIVALENT OF EXCESSIVE DRY MAT SHRINKAGE BY SETTING NARROWER COLUMNS

GEORGE FULLER, Stereotype Superintendent of the Cleveland *Press*, advocated the setting of narrower column measure in newspaper printing as a means for eliminating excessive dry mat shrinkage in order to accomplish the same result. When addressing the recent ANPA Mechanical Conference in Cleveland, Mr. Fuller stressed that perhaps excessive shrinkage might be all right as a measure to conserve newsprint during the war. Excessive shrinkage is contrary to all principles of good printing. He said: "Today excessive shrinkage is causing plenty of operating trouble but it is undoubtedly saving some newsprint. If the practice is continued it will be detrimental to the industry. We want to consider ways of improving newspaper printing."

In urging elimination of excessive shrinkage, Mr. Fuller asked "Why not secure the equivalent of excessive shrinkage mechanically such as setting 11½ pica instead of 12 pica columns? Some composing room executives will say that such a procedure will produce bastard measures. But in times like these we have lots of bastard measurements with 3 pt. column rules, 9 col. pages and 10½ pica classified columns. It's hardly reasonable to say that setting narrower type columns is any great hardship."

To which observations we add the thought that if commercial printers can work with odd measures, certainly the newspaper printer can do likewise, so long as the fractional-pica measure is based on the point system.

machines like humans grow old

—but not by the mere passing of years

Linotype Caslon Old Face

YOUTH IS largely a state of mind, and vigor the freshness of health. Only the lack of a reasonable amount of care frequently determines the difference between actual youth and real old age—whether it be human or mechanical.

Today, the health of the nation is the public and personal responsibility to a far greater extent than ever before, and the health of the Linotypes of the country is equally important to everyone.

Care for them! Don't let them grow old through inattention to their well-being. Linotypes have a job to do for the Press.

—And help the health of the nation by buying WAR BONDS

"During these difficult times, with longer hours, less attention and changing personnel.

Telephones: HARRISON 3991-3992-3993

Mercury PRESS 638 FEDERAL STREET • CHICAGO

June 9, 1944

Mr. W. J. McWilliams,
Miehle Printing Press & Mfg. Co.,
14th Street and So. Damen Avenue,
Chicago 8, Illinois.

Dear Mr. McWilliams:

I thought you would like to know how well our 16 Miehle presses are performing during these difficult times.

It has been necessary for us to run them longer hours with less attention and changing personnel and it just hasn't been possible to protect them with the skilled maintenance care which they received in normal times.

In spite of these conditions all of our Miehle Verticals, Horizontals, Automatic Units and flat beds have been giving us their usual dependable production just as they did before the war. I think it is a remarkable tribute to the precision manufacture, dependability and durability of Miehle printing equipment.

As you know, we tried a pair of cheaper, lighter presses built by another printing press manufacturer but experienced so much trouble with idle time due to mechanical repairs that we disposed of them and replaced them with Miehle equipment. I am certainly glad that we do not have to contend with securing and replacing parts and trying to keep those light weight presses running under war conditions.

The wartime period has surely been an acid test of the reliability of printing presses. I think it has proved the soundness of the principle of sturdy construction which you have always adhered to.

We are looking forward to the time when we can secure improved post-war machines and in the meantime we are confident that our Miehle equipment will see us through.

Very sincerely yours,
MERCURY PRESS, INC.

Vice-President and
General Manager

HRR:GB

"I'm sure glad we've got MIEHLES!"

Eight Miehle Verticals serve the job needs of Mercury Press.

Mercury pressmen find their four Miehle Horizontals ready for big sheets as well as small.

Behind these two Miehle 41 units are two older presses built years ago . . . and still the pride of the men who run them.

Miehle presses that stand up so well in wartime will stand up so well in peacetime. Make sure your next peacetime press is a Miehle.

MIEHLE PRINTING PRESS & MANUFACTURING CO.

14th STREET & DAMEN AVENUE • CHICAGO 8, ILLINOIS

Receives Army-Navy "E" Award

THE VANDERCOOKS RECEIVE ARMY-NAVY "E" AWARD—(left to right): D. D. Vandercook, Chief Engineer; R. O. Vandercook, Founder; E. O. Vandercook, General Manager; F. R. Vandercook, Production Manager.

VANDERCOOK & SONS, Proof Press Manufacturers, 900 North Kilpatrick Avenue, Chicago, Illinois, were presented with the Army-Navy "E" Production Award, July 27, for outstanding performance in the production of parts and assemblies for the Norden Bombsight. Ceremonies were held at Lion's Hall.

The presentation was made by Lieut. Col. Donald A. Eddy representing the Army, and Lieutenant Melvin F. Lamphar representing the Navy.

R. O. Vandercook, founder of the firm, delivered an impressive acceptance speech, sharing honors with his sons, E. O. Vandercook, D. D. Vandercook, F. R. Vandercook, and the loyal workers at Vandercook and Sons.

Mr. Vandercook summed up his appreciation as follows: "An honor such as we are receiving today, is never the result of any one individual's efforts but is due to the harmonious teamwork of every element in the organization. This ability to pull together and work together has made it possible for us to be of some service to our country. I believe the great motive behind our United efforts has been the love of country that every true American instinctively feels—and not a personal motive. It is the spirit that is America—that is our guiding light."

University of Missouri School of Journalism Awards Medal to Fredric William Goudy

DURING its Journalism Week, May 12, the University of Missouri School of Journalism presented a medal to Frederic William Goudy, the type designer. The citation is as follows: "To Frederic William Goudy, in recognition of a contribution to the art of type designing second to that of no other man; his industry, originality, and correct taste in designing more than one hundred type faces in a career of nearly half a century devoted mainly to that labor; and the debt which is owed to him everywhere by the builders of effective advertisements, the writers of good headlines, and the makers of beautiful pages in all departments of the printing art."

An interesting excerpt from Mr. Goudy's response is as follows:

"In the late nineties, I began the study of printing and the design of types; by 1925 I had made many drawings for types for which matrices were engraved for me by the late Robert Weibking of Chicago. His work always was technically satisfactory but I did not feel that the types cast from the matrices he made carried fully into print the exact qualities of rhythm and feeling I was striving for in my original drawings. I soon found out that no punch cutter or matrix engraver, no matter how skillful he might be in his own work, could do more than approximate the subtleties of another's thought and feeling, or carry into his rendering of another's design the subtle touches which the designer himself would instinctively give were he working out his own conceptions, since as the designer works, he can vary each stroke to meet fully his demands for complete harmony with every other stroke.

"In fact, the designer of a type has no right to expect from the mere artisan to whom he must entrust the work of engraving his designs, that he will retain in them by *mechanical* means the element of rhythm, an element which is not a result of any ideal of mechanical precision, but which rather is the result of artistic feeling.

"As early as 1921 I had visions of becoming the producer of my own designs and of carrying out with my own hands every detail of a type from drawing to the printed page. Curiously enough, it is almost by accident that the dream came true. In 1925 I had never attempted to cut a matrix, nor did I realize the extent of the work entailed or the equipment required to make a satisfactory matrix for casting type. I had accepted, with all the assurance in the world, a commission to design and furnish a private type for the exclusive use of the *Woman's Home Companion*. In accepting the commission I had planned to do what I had done previously, with all of my types, that is, to make drawings and have my friend Weibking engrave the matrices for me. When my drawings were completed, I was shocked to learn of my friend's death in the meantime, and I knew of no one else to whom I could turn for the work he had done so admirably for me.

"With more assurance than good judgment, I determined to make The Village Letter Foundry a type foundry in fact as well as in name and at once set about getting together the paraphernalia of a modest foundry. In short, it meant to me, with no previous founding experience or "tutelage under any master," to attempt to make patterns, to grind cutting tools for engraving matrices, to learn every detail of type founding from the ground up in order to carry out this commission, and that, too, after I had passed my sixtieth birthday."

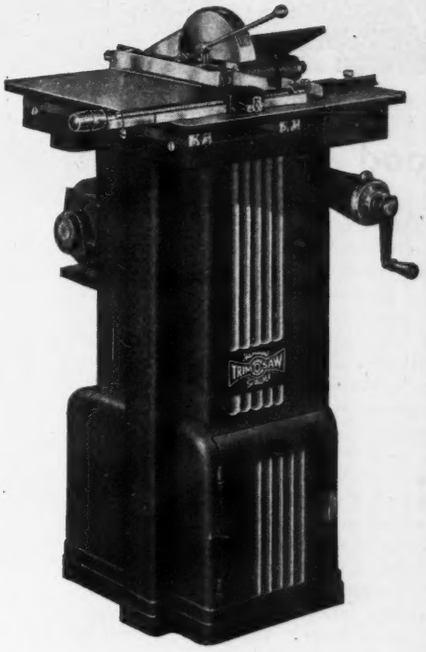
Why?

A problem in static arose recently in a commercial printing plant in connection with a job being run on a Miehle Vertical. The paper consisted of an 11 in. by 17 in. sheet of 9 lb. stock, 25,000 copies. The usual methods of eliminating static were applied without appreciable effect. Someone thought of applying silver paste (before varnish has been added) to the press tympan. The static disappeared instantaneously. Why? And how do you know you know?

LOOK TO *Hammond*

FOR TOMORROW'S FINEST

SAWS AND CASTERS



Hammond
"8"
EASYKASTER

Hammond
GLIDER
TRIMOSAW

Better operating features and superior construction made Hammond Saws and Casters the choice of most during pre-war days. There is nothing like the smoothness of the Glider's ball bearing table and the easy operation of the EasyKaster "8". Both machines will be back again after the war to do a job for you.

★ *Hammond Machinery Builders* INC ★

1604 DOUGLAS AVE. KALAMAZOO 54, MICHIGAN • EASTERN BRANCH: 71 WEST 23rd ST., NEW YORK 10, N. Y.

Wood Awarded Army-Navy "E"

AT the State Armory, Plainfield, N. J., on Monday, August 28, Wood Newspaper Machinery Corporation celebrated presentation of the Army-Navy "E" Award.

In the illustration above (center) Elizabeth Dunning sings *America*. Next (left) is Major Vincent G. Hart, USA, who presented the pennant. Next (right) is Oscar C. Roesen, Wood's president, who accepted for the company. Third (right) is Commander Courtland J. Strang, USN, who was mechanical superintendent of the New York *Times* previous to entering the service.

Listed in the armed forces are 81 former employees of the Wood Company, peacetime producers of newspaper printing presses and Autoplate stereotype plate-making equipment.

During the course of his acceptance address, President Roesen stated: "This flag (the new Army-Navy "E" Award) will be added to another which some time ago was presented to us by the U. S. Treasury Dept., signifying that over 90% of the employees of our company have pledged 10% of their wages towards the purchase of war bonds under the payroll deduction plan.

"You have completed 65 different war contracts on time and without a single rejection. One of the devices, weighing approximately 40 T., has just been completed and accepted by the Navy."

Mr. Roesen also paid tribute to other printing press and equipment builders for the contribution they have made in supplying the materials of war.

LTF Makes Appointments

New committee appointments confirmed by the Board of Directors of the Lithographic Technical Foundation at its July meeting, add John M. Wolff, jr., of Wolff Printing Company, St. Louis, to the Executive Committee and Milton P. Thwaite of Dennison & Sons, Long Island City, N. Y. as a member of the Finance Committee.

The present Executive Committee of the Foundation comprises Les H. Jackson, Gen. Wm. Ottmann, Trowbridge Marston, John M. Wolff, jr., R. R. Heywood and R. V. Mitchell. The Finance Committee consists of Mitchell, Heywood and Thwaite. E. H. Wadewitz, president of the Foundation, is a member ex-officio on both committees.

In addition, the Board confirmed the appointment of a new Research Committee which includes Arthur W. Cornell, Forbes Litho. Mfg. Co. of Chelsea, Mass.; Robert Butler, General Printing Ink Corp., New York City; Gus Carlson, Harold M. Pitman Co., Chicago, Ill.; Harvey Glover, Sweeney Litho. Co., Belleville, N. J.; Victor W. Hurst, Eastman-Kodak Co., Rochester, N. Y.; Ernest Jones, Graphic Arts Corp. of Toledo, Ohio; Joseph Machell, Stecher-Traung Litho. Corp., Rochester, N. Y.; Randolph T. Ode, Providence Litho. Co., Providence, R. I.; Kim Stuart, Neenah Paper Co., Neenah, Wis.; and William Walters, U. S. Printing & Litho. Co., Brooklyn, N. Y.

Now with Burgess

Eugene J. Fangman is traveling in central states territory and is representing the Burgess Cellulose Co. as technician. Mr. Fangman was formerly connected with the stereotype department of the Des Moines (Ia.) *Register* and *Tribune*.

Technical Meetings . . .

Advertising Typographers Association of America—French Lick Springs Hotel, French Lick, Ind., Thursday, Friday and Saturday, October 12, 13 and 14. Executive Secretary, Albert Abrahams, 461 Eighth Ave., New York 1, N. Y.

Great Lakes Newspaper Mechanical Conference—The October 1944 meeting has been cancelled indefinitely. George Fuller, President, c/o Stereo Dept., Cleveland *Press;* Al P. Oberg, Secretary-Treasurer, c/o *Journal,* Flint, Mich.

Illinois Newspaper Mechanical Conference—Hotel Broadview, East St. Louis, Ill., Saturday and Sunday, October 21 and 22. President—Don Shelley, East St. Louis *Journal*; Secretary-Treasurer—Howard M. Colton, Bloomington *Pantagraph.*

National Association of Photo-Lithographers—Hotel New Yorker, New York, Thursday, Friday and Saturday, September 21, 22 and 23. Walter E. Soderstrom, Executive Secretary, 1776 Broadway, New York, N. Y.

New England Mechanical Conference—Hotel Statler, Boston, October 14, 15. President, Glendon S. Magoon, Fitchburg (Mass.) *Sentinel.* Secretary-Treasurer, Walter C. Crighton, New London (Conn.) *Day*. Program Chairman, Geo. F. Marshall, Production Supt., Portland (Me.) *Press-Herald-Express.*

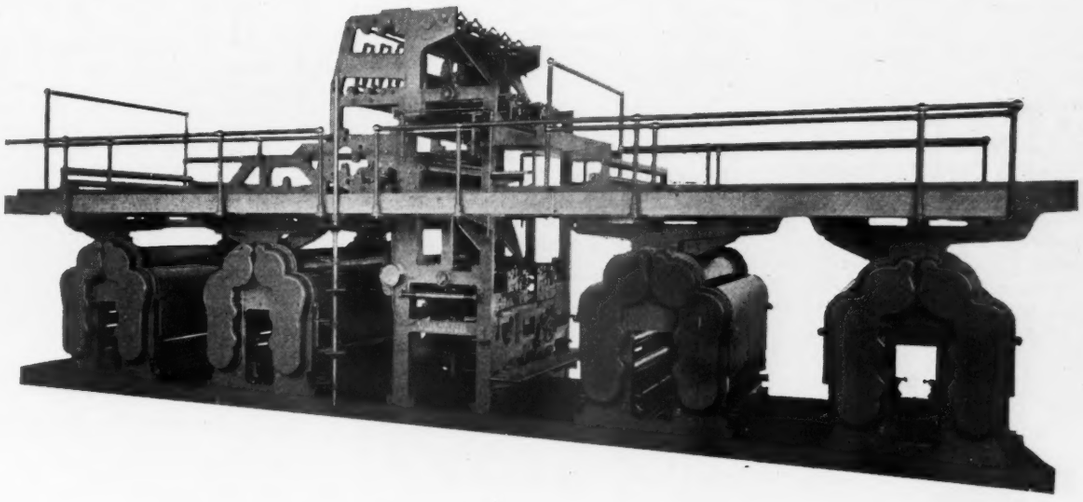
New Jersey Newspaper Mechanical Conference—Robert Treat Hotel, Newark, N. J., Saturday, November 18. One-day session. George H. Holloway, President, NJPA Mechanical Div., Elizabeth (N.J.) *Daily Journal.*

Northwest Mechanical Conference—This conference has been scheduled to be held in February 1945. Announcement regarding meeting date and city will be made later. President, Al Rosene, Mechanical Superintendent, St. Paul *Dispatch* and *Pioneer Press;* Secretary-Treasurer—Vernon G. Eck, Danwoody Industrial Institute, Minneapolis, Minn.

Pacific Newspaper Mechanical Conference—(Formerly Pacific-Southwest Newspaper Mechanical Conference)—1945 meeting scheduled to be held in San Francisco—dates to be announced later. President, Ira Stuck, *Shopping News,* San Francisco, Calif.

SNPA Eastern Division Mechanical Conference—1944 Conference which was to have been held in New Orleans, La., has been postponed indefinitely. C. Frank Mann, Chairman Executive Committee, Louisville (Ky.) *Courier-Journal* and *Times;* Walter C. Johnson, Secretary-Manager of the SNPA and Secretary of the Mechanical Conference Executive Committee, P. O. Box 1569, Chattanooga 1, Tenn.

United Typothetae of America—In cooperation with ODT, the annual convention has been cancelled for the third successive year. However, a Board of Directors' business session, to which all members are invited will be held at Hotel Carter, Cleveland, November 1 and 2. L. Irving Lamphier, Executive Secretary, 719 Fifteenth St., N. W., Washington 5, D. C.



Scott LEADS THE WAY!

The latest Scott Extra-High-Speed Newspaper Press is a great stride forward in the Evolution of the Modern Newspaper Press.

It is the result of 24 years of intensive concentration on the improvement of the Original Scott Underfed Printing Unit of 1916 — the Cylinder Arrangement and Inking Principles of which have, in more recent years, been universally followed as representing the best and most practical solution of the fundamental problem of efficient Unit Design.

This is the longest continuous effort and experience applied to this single purpose in the history of Newspaper Presses. No other Newspaper Printing Press has this background of experience and effort with a single form of Printing Unit and none can fully equal its performance.

A Bulletin describing the features of the latest Scott Press is available on request.

WALTER SCOTT & CO., INC.

PLAINFIELD, N. J.

Typographers to Meet

The 18th annual meeting of the Advertising Typographers Association of America, Inc., will be held Thursday, Friday and Saturday, October 12, 13 and 14 at the French Lick Springs Hotel, French Lick, Indiana.

The Meeting will be addressed by Frederick R. Gamble, President of the American Association of Advertising Agencies, Harry L. Gage, Vice President of Mergenthaler Linotype Co., Fred Heitkamp of American Type Founders, Inc., William A. Duboc of Hamilton Manufacturing Co., Fred W. Farrar of Reilly Electrotype Co., Inc., and Frank M. Sherman of Lanston Monotype Machine Co. Other speakers will be announced later.

Reservations should be made through the Executive Secretary, Albert Abrahams, 461 Eighth Avenue, New York 1, N. Y.

Carbon Dioxide Fire Extinguisher

A CARBON dioxide fire extinguisher has been announced by Randolph Laboratories. The extinguisher is a 25 lb. wheel-type portable piece of equipment. The unit is mounted on hard rubber wheels and is self-balanced standing or in operation. The horn and hose connection is 5¾ in. long. A trigger valve is mounted on the extinguisher steel handle. By grasping the handle, the operator can move the unit and press the release

Randolph carbon dioxide fire extinguisher in action.

button with one hand to discharge a blanket of carbon dioxide in an arc ranging from 10 to 20 ft.

The unit is designed for protection against gasoline, oil, paint, grease, machine, electric and surface fires.

If interested, you may obtain further information through *Printing Equipment Engineer*.

Institute Changes Name

The Board of Regents of the University of the State of New York has granted permission to change the name of the Rochester Athenaeum and Mechanics Institute to Rochester Institute of Technology.

The title, Rochester Institute of Technology, is considered more descriptive of the work which the Institute is now doing than the old name, it was explained.

Mechanics Institute, the name by which the Institute usually was known, was founded in 1885 by Capt. Henry Lomb and a group of Rochester industrialists and merged with the Athenaeum in 1891. Dr. Mark Ellingson, Institute president, explained that "students and graduates of the Institute have long sought a more descriptive name. They have felt that the old name was not an adequate description of the high quality of technological and industrial work which is now being carried on."

Use of the new name is to begin immediately. Besides the name change, the Regents also approve the application of the Institute for change of the name of the governing board from Board of Directors to Board of Trustees.

RUN IT AT RIGHT ANGLES TO GRIPPER

A printing plant executive in a commercial letterpress printing plant passes along the suggestion that if Kromekote (made by Champion) is run with the grain at right angles to the gripper there will be less picking.

Research Facilities Augmented

Contracts were signed recently to step up the pace and greatly increase the research facilities of the Lithographic Technical Foundation. Under new arrangements just made with President Walters of the University of Cincinnati by President E. H. Wadewitz and W. E. Griswold, Executive Director of the Lithographic Technical Foundation, the Foundation's research staff and equipment will be increased there where it has headquartered since the research program started in 1925.

Supplementing this arrangement, an agreement recently was signed with Director Harold Vagtborg, Armour Research Foundation, by the same officials of the Lithographic Technical Foundation, whereby a number of the major projects looking to the solutions of many of the pressing problems of the industry will be expedited at Armour.

The office of the director of the Foundation's research will continue at Cincinnati as well as the extensive lithographic library, files on research, patents and abstracts. A number of specialized research projects already are under way.

Letterpress After the War

"THE competing processes to letterpress have been forced upon the consumer, or have been brought to the front because of the war. Certain printing has been produced by none-too-well trained operators. The way to hold letterpress's supremacy is to make the letterpress product so much better that the customer will want it. But—start making it better today—not tomorrow."—L. W. Claybourn, Executive Vice President, J. W. Clement Co., Buffalo, N. Y., before the Niagara Falls (Ont.) International Craftsmen's convention, July 1944.

UTA Directors—Membership Meeting

In cooperation with the Office of Defense Transportation, the United Typothetae of America has cancelled for the third successive year, its annual convention, normally held in October. The Association's Board of Directors will hold a business session and war problems conference, to which all members are invited, November 1 and 2 at Hotel Carter in Cleveland. The election of officers for 1944-45, business of the National Association and the welfare of the commercial printing industry will comprise the agenda—no entertainment being planned. Detailed program will be announced in the near future.

Offset-Lith Shop Manuals

THE first four of a series of ten or more pocket-size shop manuals, each covering a separate subject relating to the lithographic processes were released to members late in August by the Lithographic Technical Foundation, 220 East 42nd St., New York 17, N. Y. The titles of the booklets are: (1) Albumin Plate Making, (2) Dot Etching, (3) Paper and Humidity in the Pressroom, and (4) pH Control of Fountain Solutions.

Printed in offset with attractive offset colored covers, this new addition to the Foundation's "five foot" shelf of texts on lithography will fill a long felt need.

The booklets are designed for the man who wants to increase or refresh his store of knowledge by his own spare time reading anywhere he can. Thus the small size page and the large type. As supplementary reading for the organized trade school teaching or for in-plant training courses, they are useful. These form an important part of the Foundation's stepped-up educational program.

An Invitation

Mechanical and production executives are invited to submit to the editor of *Printing Equipment Engineer* descriptions of methods or devices they have developed in their plants. Other executives will benefit from your generosity in passing on ideas.

Printing Patents . . .

Covering patents issued July 25, August 1, August 8, August 15, August 22

This data is compiled exclusively for Printing Equipment Engineer by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,355,037. SELF-BINDING ARRANGEMENT OF LEAVES for books, magazines, pamphlets, etc., in which the leaves or pages are wholly secured by one another. One group of longitudinally folded sheets have substantially rectangular cut-outs extending over the folded section and another group has narrow slots cut at the top and bottom edges of the sheets coinciding with the fold lines. These cut-outs and slots are so arranged and dimensioned that when the various leaves are arranged, the leaves will interlock to form the self-binding. Invented by Henry Einzig, Chicago, Ill. Assigned to Stemar Displays Company, Chicago, Ill. Application February 13, 1943. 4 claims.

2,355,737. BINDING BY CASTING EDGE OF STACKED SHEETS IN PLASTIC. In this new method of book binding the casing is effected by shaping, molding, spraying, casting, or pressing a plastic onto a stack of sheets or by dipping the stack into the plastic. A U-shaped back is prepared to fit onto a book, book is inserted along one edge into the back, the free longitudinal edges of back are depressed onto the book and the opposite ends of back are closed. A plastic bond is then injected into the closed back around the portion of the book inserted therein. Invented by John J. Krehbiel, Bridgeport, Conn. Unassigned. Application May 13, 1941. 15 claims.

2,356,046. SIMULTANEOUS DRILLING AND SLOTTING MACHINE which drills holes through a stack of sheets and by reciprocating the tools, slits or slots the paper outward from the drilled holes to an adjacent edge of the stack of sheets. The slots may be of different forms by means of different interchangeable cutters or by rearranging and changing the positions of the cutting blades. The device can be attached to drilling machine of the type covered by patent 2,173,817. A simple means is included for removing the small pieces of paper cut from the sheets. Invented by Mark J. Garlick, Chicago, Ill. Assigned to The Challenge Machinery Co., Grand Haven, Mich. Application July 11, 1938. 6 claims.

Composing Room Equipment:

In the five weeks covered, no new patents have been issued for this classification.

Feeding, Folding and Delivery:

2,354,599. COMPENSATING ROLL DRIVE MECHANISM for printing presses designed to correct misalignment in moving webs. It is for use with alignment detectors, both lateral and longitudinal, of the stroboscopic type, in connection with the disclosure made in Patent No. 2,220,737, of which the present patent is a division. (The earlier patent was reported in the December, 1940, Printing Equipment Engineer.) The mechanism of the present invention operates on the selective reception of electrical impulses from one or the other of two sources. Invented by John L. Jones, North Billerica, Mass. Assigned to Stockton Profile Gauge Corporation, Lowell, Mass. Original application May 5, 1937, now Patent No. 2,220,737. Divided and this application September 13, 1940. 10 claims.

2,354,952. APPARATUS FOR WINDING PAPER into rolls of uniform hardness. The slow drum is allowed to speed up as the roll of paper being wound increases in size and weight, but is never allowed to reach the speed of the fast drum. This is accomplished by means of a dynamatic clutch or eddy current coupling interposed between the slow drum and the driving mechanism. The electrically controlled coupling is free from rubbing parts and slips to allow increasing speeds of rotation of the slow drum as the roll being wound increases in size. Invented by Lloyd Hornbostel, Beloit, Wis. Assigned to Beloit Iron Works, Beloit, Wis. Application May 8, 1941. 10 claims.

2,355,396. FLOAT APPLIED TO PRINTING PRESS JOGGER. The invention consists of a box with a wall constructed to allow controlled escape of air to facilitate even drop of the printed matter from the delivery end of a press into the box. Escape of air from the box may be varied or adjusted to accommodate the different weights of paper used in the printing process. The float serves to provide an effective means to retard contact of the freshly printed sheets and thereby prevent off-set. Invented by Edward F. Rupp, Cleveland, Ohio. Unassigned. Application January 25, 1943. 6 claims.

2,355,697. SHEET DELIVERY MECHANISM which has sheet gripping suckers or the like traveling in a path which meets and about coincides with a portion of the path of the sheets carried from a printing machine by a fast moving conveyor to take up the sheets therefrom and feed them edgewise into the bites of gripping devices on a slow moving conveyer such as for drying. It is arranged so that at the instant of transfer of sheets, the sheets are moving at a speed materially slower than press speed, which assures a smooth transfer and avoids bends in the paper, which is particularly advantageous when handling heavy cardboard sheets. Invented by Frank R. Belluche, Racine, Wis. Assigned to The Christensen Machine Company, Racine, Wis. Application August 31, 1942. 17 claims.

2,355,873. PAPER HANDLING DEVICE for use with printing presses for positioning sheets relative to a stop. Device comprises a bracket with a free end and with a lever adjustably mounted on bracket. One end of a primary spring is fixed to lever and the other end of the primary spring is fixed to a secondary flat spring, the free end of which has a friction pad of yieldable material. The pad may be composition or sponge rubber. By oscillating the bracket by a shaft, the pad frictionally engages the paper to urge it against the stop, assuring that the paper will be in registry, as required for color work. Invented by Harvey La Faille, Springfield, Mass. Unassigned. Application September 17, 1943. 4 claims.

2,356,567. ELECTRIC CONTROL SYSTEM to maintain a length of moving paper in a predetermined position laterally with respect to rollers or conveyors. An electric motor is provided for effecting lateral movement of paper web together with a control circuit for the motor having an electric valve operatively associated therewith. An electrical energy storage device is connected to the electric valve and means responsive to lateral misregister of paper web are provided for controlling the electric valve to vary amount of energy stored in device in accordance with the amount of misregister of web and means responsive to the stored energy control the motor to move web laterally proportional to correct misregister. Invented by William D. Cockrell, Schenectady, N. Y. Assigned to General Electric Co., Schenectady, N. Y. Application October 16, 1941. 9 claims.

(Continued on Next Page)

These metals are in tune with the times!

There are several very good reasons why the above is true.

First, Zomo Electric Zinc and A-Z Alloy save time and everyone realizes how valuable time is today. The dependable quality of these metals eliminates lost time caused by unnecessary make-overs.

Also, they have the flawless Machine-Cut Finish, which eliminates time-taking pumicing and rubbing, and requires only a quick swabbing with tri-sodium phosphate solution.

And, when so specified, these metals are protected on the backs with Backote,* to do away with the time and bother of putting on and taking off asphaltum.

So, keep these points in mind the next time you order metal. Your regular metal supplier can give you prompt delivery on both Zomo Electric Zinc and A-Z Alloy.

**Trade name of the original backing for engravers metal.*

ZOMO ELECTRIC ZINC ◆ A-Z ELECTRIC ALLOY

Don't let over-age or worn-out equipment run up costs and delay production. Hundreds of saw trimmers, written off long ago, are still in use, though operating inaccurately and inefficiently.

Plan to make replacement as soon as possible. The No. 3-A C & G Saw Trimmer is the logical selection for most plants. It is built for easy, fast and safe operation. It has many exclusive C & G features that contribute to maximum output and economical production.

A circular describing the latest C & G equipment will be sent upon request. Write for your copy now.

MILWAUKEE SAW TRIMMER CORP.
610 EAST CLYBOURN STREET, MILWAUKEE 2, WISCONSIN

Miscellaneous:

2,354,199. TELEVISION APPARATUS for separately sending several pages or proofs of a newspaper, magazine, and other assembled matter simultaneously and repeatedly to enable the selecting and receiving of a page or more of interest at any time during continuous transmitting which may be for short or long periods of time. By this invention the contents of newspapers may be received in homes and other places many hours before printing can be finished. Method consists of scanning and developing video signals from several pages simultaneously, transmitting the video signals from each page at a different frequency and selectively receiving signals from one of the pages on a single receiver. Invented by Lee A. Collins, Louisville, Ky. Unassigned. Application January 3, 1939. 7 claims.

2,354,979. ANTI-OFFSET COMPOSITION which forms a resinous material on drying. It contains a soluble organic compound containing at least three hydroxyl groups, a boric-acid producing material, and an alkali. An example is: sodium sorbitol borate, 95% ethyl alcohol, and water. Various inert ingredients may be used, or this solution may be added to other anti-offset compositions. Invented by Ernest G. Almy, Tamaqua, Pa. Assigned to Atlas Power Co., Wilmington, Del. Application April 15, 1942. 15 claims.

2,355,902. SIGN WITH ANIMATED EFFECT comprising two plates or sheets composed of transparent material each having on one face a design produced by photographic process of the half-tone type. Sheets are placed one in front of the other so the respective designs on each sheet are aligned or slightly disaligned and slight movement between the sheets or a source of light will give an animated effect. The photographic plates, after they have been printed, are developed by depositing and gently rubbing thereover metallic pigment such as finely divided bronze or silver. Invented by Carlton T. Berg, Minneapolis, Minn. Assigned to The Photoplating Company, Minneapolis, Minn. Application April 10, 1941. 2 claims.

2,355,919. COATING PROCESS for sheet metal or paper. Paper may be coated as it comes from the printing press. Varnish and lacquer type gums, resins, or compositions of these, both natural and synthetic, in the form of hot melts are used. Process comprises sprinkling the powdered resinous substance upon a moving sheet, heating the sheet and substance at a temperature below that of liquefaction, passing the sheet over a heated base and beneath a stationary spreader bar and simultaneously applying pressure and heat above its melting point to momentarily melt the substance along a narrow line and form a thin glossy film. Invented by Samuel Lipsius, New York, N. Y. Unassigned. Application November 5, 1940. 18 claims.

2,355,953. METHOD OF COATING WEB PAPER STOCK. Paper is coated with a water-resistant but wettable surface, useful for lithographic printing. Starch adhesive is used in place of the usual casein adhesive. The coating composition comprises a coating pigment in an aqueous medium with a starch adhesive and an emulsion of a water resistant agent. The applied film is dehydrated and the emulsion is broken during the dehydration of the coating. One method of controlling the emulsion is to stabilize it with ammonia. Invented by William Lutton Craig, Westport, Conn. Assigned to R. T. Vanderbilt Company, Inc., New York, N. Y. Application May 28, 1942. 4 claims.

Plate Making:

2,355,047. APPARATUS FOR PRODUCING PRINTING PLATES from negatives and positive copy by scanning same when suitably illuminated, the transparent or translucent copy illumination being passed through the copy while the opaque copy illumination is reflected therefrom upon a light reception and tool control energizing arrangement. It includes a photo emissive cell with an aperture to permit light to fall on the cathode of the cell, an impulse generator to provide the aforesaid timing signal, a transformer to introduce the timing signal to the grid circuit, a modulating tube to amplify the modulated timed signal and an audio-type, transformer-coupled amplifier to carry the modulated signal to a reproducing device, whereby signal may be recorded on printing plate. Invented by Joseph A. Bennett, Anderson, Ind. Assigned to Lynch Corporation, Anderson, Ind. Application February 24, 1942. 23 claims.

2,355,324. TOOL HOLDER with devices for making minute changes in the axial and angular relation of a cutter with respect to the holder. It is useful in the turning of brass cylinders or rolls for use as rotogravure electros in preparing the cylindrical surfaces with a smooth finish. The body of the tool holding frame is formed with an annular recess in which is loosely fitted a spanner nut for imparting linear adjustment movement to a threaded tool holding sleeve, one end of the recess being closed by a pinned collar for ease of assembly. Invented by James H. Palmer, Binghamton, N. Y. Assigned to International Business Machines Corporation, New York, N. Y. Application April 14, 1943. 4 claims.

2,355,529. PROOFING APPARATUS AND METHODS for flexible printing plates. The apparatus includes a tubular perforated terminally flanged roller on which a flexible printing plate may be held by suction. The flanges of the roller are of such height as to maintain between the middle portion of roller and a rigid inking roller combined therewith a distance corresponding to the desired uniform height of the plate which will give satisfactory impressions in the printing press. When plate is inked by a kissing impression, contacting the highs only of the plate, by the rigid inking roller having a white non-drying ink, any local variations in thickness are made clearly apparent and thereby may be corrected. Invented by John F. Hawley, Riverside, Ill. Unassigned. Application May 16, 1941. 9 claims.

2,355,530. PROOFING PROCESS for flexible printing plates. The proofing apparatus includes a perforated flat bed on which a flexible printing plate may be held by suction. At its longitudinal edges, the bed is provided with parallel bearers providing elongate bearing surfaces raised above the highs of a printing plate held on the bed. The apparatus also includes a rigid, cylindrical inking roller disposed transversely of the bed and provided with terminal bearing surfaces adapted to roll on the bearing surfaces of the bearers. This permits roller to roll lengthwise of the bed. Inking roller is coated as roller rolls over the bed. Height of bearer and diameter of roller are proportioned to thickness of plate so as to ink high spots of plate and permit building up of low areas until inking is uniform. Invented by John F. Hawley, Riverside, Ill. Unassigned. Application April 4, 1942. 3 claims.

2,355,949. METHOD OF MAKING COMPOSITE PRINTING PLATES in which a thermoplastic printing plate is secured to a metallic backing. The method includes etching the surface of the backing to provide undercut recesses in the metal, filling the recesses with plastic, heating the backing to a temperature above the softening point of the plastic plate and pressing the relatively cool sheet against the heated backing to cause it to engage therewith. During this latter step the outer printing surface of the plastic sheet is cooled and maintained at a temperature below its softening point. Also the backing, itself, is cooled as soon as it is engaged with the plastic sheet. Invented by Clarence E. Boutwell, Birmingham, Ala. Unassigned. Application August 29, 1941. 3 claims.

2,356,081. MOLDING THERMOSETTING MATERIAL BY INJECTION by a method useful in making printing plates. The granular thermosetting material which is solid at ordinary temperatures is forced through a superheating zone to fluidize the material. The fluidized and superheated material is poured into a mold to give it finish and form. The formed but interiorly uncured piece is ejected from the mold. The molded piece is then allowed to cure, and the stored up heat acquired upon passage of the material through the superheating zone enables the curing to take place. Invented by Emil E. Novotny, Philadelphia, Pa. Assigned to Durite Plastics, Incorporated, Philadelphia, Pa. Application February 8, 1940. 16 claims.

2,356,329. SEPARATION AND RECLAMATION OF COPPER from printing plates and the like which are made of a base metal with a coating of copper and nickel and wherein the base metal has a lower melting point than copper. The process consists in electrolytically stripping off the nickel; coating the stripped copper surface with a whiting, and melting off the base metal which leaves but a thin coating on one surface of the copper plate. Then this thin coating is oxidized by heating and rapidly cooling to change it to a scale. The scale is loosened by distorting the plate, thus cracking up the scale which may then be easily removed. Invented by Axel E. Lundbye, Springfield, Ohio. Assigned to The Crowell-Collier Publishing Company, Springfield, Ohio. Application May 23, 1942. 7 claims.

Printing Inks and Related Chemicals:

2,354,463. VAT DYE PRINTING PASTE containing a small amount of an ester of a polycarboxylic acid having at least one sulfonic group, the alcohol radicals of the esters being aliphatic alcohols of more than 3 and less than 10 carbon atoms. The composition may be used for dyeing or printing. Invented by Roy Herman Kienle and Chester Albert Amick, Bound Brook, N. J. Assigned to American Cyanamid Company, New York, N. Y. Application February 24, 1942. 14 claims.

2,354,554. PROCESS OF PREPARING RESINS AND DRYING OILS from hydrocarbon oil acid sludges, the products being useful in preparing printing inks and other materials. The cracked naphtha or hydrocarbon naphtha containing a large percentage of unsaturated hydrocarbons is treated with strong sulfuric acid. After agitation, the mixture is allowed to settle and the acid sludge layer separates to bottom and is withdrawn. This sludge is mixed with sufficient water to hydrolyze the esters and is allowed to settle into two layers and the bottom layer of mineral acid is removed. The oily layer is neutralized with sodium carbonate. After aging it is decarbonized in propane at 120° F. and the depropanized oil is fire-and-steam distilled to 23.2% resin bottoms. The crude resin has an absolute color of 5040. Invented by Jere C. Showalter, Goose Creek, and Mehemet Wiggen, Baytown, Tex. Assigned to Standard Oil Development Company, New York, N. Y. Original application September 1, 1939. Divided and this application December 31, 1941. 6 claims.

2,355,028 through -33. OAT PRODUCT, PLASTIC COMPOSITION, useful in the preparation of printing inks and food pastes. Certain fractions of the oat grain are separated and finely divided. The special oat fraction is a relatively low starch, relatively high protein fraction which may be obtained after removal of the cellulosic hulls of the oats and after removal of a large portion of the relatively high starch fraction. Some of the patents in the present series are directed to food compositions, e.g., wherein the finely divided, dry milled oat product is used as a thickener for ice cream, etc., similarly as the oat product in patent 2,355,547, following, may be used as food composition. Invented by Sidney Musher, New York, N. Y. Assigned to Musher Foundation Incorporated, New York, N. Y. Applications between June 4, 1943 and May 4, 1944. An aggregate of 57 claims.

2,355,056. PREPARATION OF ZEIN SOLUTIONS DIRECTLY FROM GLUTEN, the products being useful in the preparation of printing inks, printing ink bases, etc. Various pigments, etc., may be used with the products. An example of the process is: 91% isopropyl alcohol is added to powdered gluten in a vessel. The mixture is heated to about 180° F. and held at about that temperature for about ½ hour with stirring to extract the zein-containing proteins from the gluten. Mixture is then forced through a filter to separate the zein-containing extract. Propylene glycol is added and mixture is heated to about 250° F., and held at that temperature. The residue is a solution of zein-containing proteins principally in propylene glycol. Invented by Roy E. Coleman, Chicago, Ill. Assigned to Time Incorporated, New York, N. Y. Original application November 30, 1942. Divided and this application December 18, 1942. 10 claims.

2,355,245. POLYMERS OF ALKYL GLYCOSIDES and process for preparing the same. The products are useful as softeners for regenerated cellulose films, as textile

(Continued on Next Page)

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printing assistants, and non-ionic wetting agents. The polymers are prepared by heating, under anhydrous conditions, alpha-methylglucoside at a temperature within the range 100-225° C. in the presence of an acidic catalyst, removing the alcohol as it is formed, and discontinuing the heating when evolution of alcohol ceases. Invented by Richard Seyfarth Schreiber and James Herbert Wernts, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Del. Application July 24, 1942. 10 claims.

2,355,547. FOOD COMPOSITION THAT MAY ALSO BE USED IN INKS, as a carrier, and as an agent for improving the viscosity. As a food it is used as a stabilizing agent for confections, desserts, etc. The composition is an oat product. The finely divided, substantially fat free, coarse fraction of dehulled oats is freed of those particles which will go through a 60 mesh screen. Invented by Signey Musher, New York, N. Y. Assigned to Musher Foundation Incorporated, New York, N. Y. Application December 7, 1943. 13 claims.

2,356,025. ETHYL CELLULOSE EMULSION. The aqueous emulsions of lacquers containing ethyl cellulose are prepared spontaneously without resort to homogenization. They are useful in printing pastes and textile finishing compositions. The lacquer emulsion of the oil-in-water type has a dispersed phase comprising an ethyl cellulose lacquer, and a disperse phase comprising water and the reaction product of hydrogenated rosin having a hydrogen saturation of at least about 60% on the rosin acid basis with a volatile alkali. Invented by Charles E. Bergamini, Bloomfield, N. J. Assigned to Hercules Powder Company, Wilmington, Del. Application November 8, 1941. 9 claims.

2,356,516. HYDROPHYLIC POLYMERIZATION PRODUCTS OF THE SUPERPOLYAMIDE TYPE, useful as thickening agents for printing pastes. The hydrohalide of an omega monoaminomonocarboxylic acid containing at most 3 carbon atoms between the amino-and carboxyl groups, is heated to polymerization temperature with a polyamide-forming composition consisting of an omega monoaminomonocarboxylic acid containing at least 4 carbon atoms between the amino-and carboxyl groups. The hydrohalide is present in an amount of from 20% to 100% by weight of the polyamide-forming composition. Invented by Max Hagedorn, Dessau, Germany. Vested in the Alien Property Custodian. Application September 5, 1940. 4 claims.

2,356,618. STABILIZED DIAZO PRINTING PASTES which contain, in addition to the diazo salt and the paste-forming ingredients, an aryl carboxylic acid, or a soluble metallic salt thereof, such as an alkali metal salt. The printing pastes are said not to deteriorate so swiftly and to keep their strength longer. Invented by Swanie S. Rossander, Chiles E. Sparks, and Carl W. Maynard, Jr., Wilmington, Del. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Del. Application May 23, 1941. 5 claims.

Printing Presses and Equipment:

2,354,950. PRINTING PRESS DRIVE particularly suitable for sheet fed printing presses. An object is to enable instantaneous change in drive from a high speed motor, regardless of its speed, to a low speed motor for a period determinable by the operator, and to provide for return of the drive to the high speed motor automatically at the termination of such period. A relatively large motor is positively coupled to the press and it may also be coupled to a counter-shaft by an electromagnetic clutch having two cooperating parts mounted on the motor shaft and on the countershaft, respectively. A small motor provided with a brake is coupled to the countershaft. Invented by Cyril P. Feldhausen, Wauwatosa, Wis. Assigned to Cutler-Hammer, Inc., Milwaukee, Wis. Application February 6, 1943. 17 claims.

2,354,981. INK DISTRIBUTION for rotary printing presses. Invention provides a sectional ink transfer roller comprising a cylindrical core and a plurality of sleeves removably mounted end to end thereon. All or certain of the sleeves have ribs of varying widths according to the character of the printed product arranged in different relative positions along the roller; or certain of the sleeves may have continuous ink transfer surfaces, according to where greater or lesser quantities of ink are to be applied to the printing cylinder. Invented by Howard M. Barber, Pawcatuck, Conn. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application June 11, 1942. 16 claims.

2,355,046. PRINTING PRESS in which a total press output equivalent to the sum of the sheets fed by two feeders serving the press may be maintained not only without increasing the linear speed of the sheets through the press beyond the limits set by good printing requirements, but actually with no increase in printing impression speed. This is achieved by providing in a press having a single plate cylinder carrying one set of plates, two cooperating impression cylinders to form two printing couples with the one set of plates, i.e., a printing couple for each feeder. Sheets are also carried to separate delivery mechanisms. Invented by Frank R. Belluche, Racine, Wis. Assigned to The Christensen Machine Company, Racine, Wis. Application May 9, 1941. 12 claims.

2,355,134. PRINTING PLATE CLAMP designed to relieve shearing or side strain on the clamp screws when forcing the clamps into operative position. Clamp is adapted to be moved along a grooved support into engagement with an edge of a printing plate. Clamp comprises a hook, a nut slidable in grooved support and a clamp screw passing through hook into threaded engagement with the nut. The hook and nut have curved coacting surfaces concentric with the clamp screw for preventing the hook from exerting side strain on the screw when nut is subjected to endwise force; also to permit the hook to be properly seated against the edge of the printing plate. Invented by Howard M. Barber, Pawcatuck, Conn. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application October 2, 1942. 7 claims.

2,355,930. STENCIL PRINTING MACHINE in which stationarily located material to be printed upon is traversed by a printing mechanism that is advanced periodically and located automatically in successive printing positions. A fluid driving mechanism is provided for actuating not only the movement of the carriage along the material to be printed but also the raising and lowering of the stencil frame and the locating mechanism by means of which the carriage is located in successive printing positions. Invented by Ward Thorne, Westport, Conn. Assigned by mesne assignments to Linen Guild, Inc., New York, N. Y. Application April 11, 1941. 18 claims.

2,356,005. METHOD OF MAKING A PRINTERS' ROLL using an improved adhesive for bonding the gelatine-glycerine composition to the metal core. Buna N and an organic diisocyanate are used. The adhesive is applied to the metal and, after evaporation of the solvent, the gelatine-glycerine composition is applied. The article is set aside at room temperature to allow the Buna to cure and the gelatine-glycerine to gel. Invented by Glen F. Roquemore, Akron, Ohio. Assigned to Wingfoot Corporation, Akron, Ohio. Application November 3, 1942. 4 claims.

2,356,010. INKING ROLLER CONSTRUCTED OF SECTIONS, which sections may be easily prepared to cooperate with various parts of the form requiring different amounts of ink. Each section may revolve independent of its neighboring section, avoiding strains which would cause twists, slips, cutting, wrinkling, and melting of the composition roller or rollers. Spaced pairs of bearings having inner races are releasably clamped on the shaft of the roller. Outer races with outwardly projecting radial flanges on their outer edges cooperate with a rigid tube mounted between the outer races and bear against the flanges and support the inking roller composition material. Invented by Harry B. Seymour, Pearl River, N. Y. Unassigned. Application October 31, 1942. 6 claims.

2,356,058. LITHOGRAPHIC SHEET-FED OFFSET PRINTING PRESS which can print a larger sheet for a given size of cylinder and run faster and more smoothly

than presses in prior use. The centers of the impression and blanket cylinders are arranged in a horizontal line and the plate cylinder vertically above blanket cylinder. A trip is operated by a cam attached to impression cylinder shaft. The blanket cylinder is automatically tripped from the plate cylinder during the time that the gaps of these cylinders are passing the line connecting their centers. Then, initiated by this tripping action, the blanket cylinder is automatically tripped from the impression cylinder while the gaps of these cylinders are passing the line connecting their centers. Invented by Irving A. Hunting, South Plainfield, N. J. Unassigned. Application September 16, 1939. 12 claims.

2,356,156. REVERSING MECHANISM OR ROLL-CURVE GEAR for type bed in printing presses in which the motion that is to be imparted to a reciprocating bed is restricted to a specific law of acceleration. The mechanism has been designed to provide maximum efficiency for a given set of conditions such as length of stroke; length of uniform motion and permissible maximum forces. An ideal condition attainable by the invention is the combination of the desirable or good features of a parabolic motion with the desirable features of a harmonic motion, i.e., constant, combined with variable acceleration, to join a uniform motion. Invented by Hyman E. Golber, Chicago, Ill. Assigned to Miehle Printing Press and Manufacturing Company, Cnicago, Ill. Application March 16, 1940. 29 claims.

Harry L. Gage, Linotype vice president, will be a featured speaker at the meeting of the Advertising Typographers' Association of America to be held at French Lick, Ind., October 12 to 14. Mr. Gage will talk on the thirteenth on *Technical Trends Ahead.*

BOOKS

RECEIVED

Materials Handling

MANY executives in printing plants from time to time have materials handling problems. Many of these executives are not aware of the best means and procedures for transporting, loading and unloading machinery, acid carboys, paper skids and rolls, type metals, drums, and in-and-out shipments of printed matter. While the book, *Materials Handling*, was not written specifically as a treatise on the handling of materials in the printing plant, yet a great deal of its text will be of value for that purpose. Included in the text are discussions for handling materials of all kinds in the manufacturing plant and in the warehouse.

Throughout the book, the author explains in simple language how many handling problems together with their costs have been solved through adoption of efficient procedures. Specific examples are given. Of particular interest to printing plant executives are the chapters on *Handling and Mechanical-equipment Principles, Fork Trucks and Pallets, Miscellaneous Equipment, Selection of Types of Equipment, Plant Design as Related to Materials Handling*, and the *Appendixes* which contain data on handling and equipment costs, specifications for pallet and other equipment, and floor conditions and power consumption.

Materials Handling—By Harry E. Stocker. Size approx. 6 in. by 9¼ in., 309 pages, well illustrated; bound in light buckram with brown stamping. Price, $5 per copy. Published by Prentice-Hall, Inc., may be ordered through *Printing Equipment Engineer*, cash with order because of limited handling margin.

2,356,160. PRINTING MACHINE DRIVE designed to obtain maximum flexibility in large multiple units used for newspapers. The invention resides in a new combination and arrangement of parts. Printing units and a folder are geared to run in synchronism. Electric motors are equal in number to the printing units and connections between them utilize all of the motors to drive the machine at printing speed. A gear reducer drives the machine at slow speed by power derived from a selected one or more of the motors. Invented by Albert J. Horton, White Plains, New York. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application December 12, 1940. 21 claims.

2,356,305. HIGH SPEED PRINTING CYLINDER to receive semicylindrical stereotype printing plates such as used for newspaper printing. The cylinder features plate clamps which securely lock the plates to the cylinder without subjecting the plates to undue strain such as might damage or break the plates during operation at high speeds over a long period. The clamps are said to be effective even if the end of a printing plate is not accurately circumferential or is warped or bent. Clamps grip the plate with resilient pressure provided by a spring construction. Invented by Curtis S. Crafts, Oak Park, Ill. Assigned to The Goss Printing Press Company, Chicago, Ill. Application April 25, 1942. 6 claims.

Biography of Flader

PUBLISHED under the simple title: *Louis Flader — Photo-engraver*, the American Photo-engravers' Association is distributing copies of a 6 in. by 9 in. monograph written by Joseph S. Mertle, FRPS, Technical Director of the IPEU. The biography contains a foreword about the commissioner by President James J. Stinson of the American Photo-engravers' Association.

It is not an easy task to write a biography about a living person especially if that person has a colorful personality. The difficulty lies in one's ability to restrain himself in the use of superlatives

2,356,315. PRINTING MACHINE adapted for use in decorating sheets of heavy paper, cardboard, tin plate, etc., with which suitable mechanism is provided to feed the sheets one at a time and in timed relation to the cooperating printing cylinder. Suitable mechanism is provided to trip or separate one of the printing cylinders away from the other. The tripping mechanism prevents tripping of the cylinders when the sheet is moving "in time," and causes tripping of the cylinders when a sheet is not moving "in time" to stop the machine. Invented by Morris S. Gudger, New York, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application December 31, 1941. 14 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

Charting the Foreman's Duties

By ALEX J. ALBERG*

*Manager of Printing, Unity School of Christianity, Kansas City, Mo. Abstracted from address delivered before convention of International Association of Printing House Craftsmen, Niagara Falls, Ont., July 1944.

THE duties of a foreman or supervisor, of course, should be outlined. When a foreman knows precisely what management expects of him and when his associate foremen and their workers also know, the plant is bound to function with less friction.

In the Unity School of Christianity Printing Plant we have seven distinct departments. The duties of each department head, or of each foreman, is outlined.

Each foreman is supplied with a complete copy of his duties, as well as a copy of the duties of all other foremen. This creates a better understanding between all departments and coordinates them into a more efficient and harmonious production unit.

For example, here are the duties of the composing room foreman:

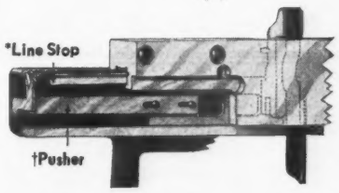
Interpret and follow job instructions.
Route work through the composing room.
See that cuts are on hand and meet the requirements of the job.
Supervise the lockup of forms.
Check up the imposition of forms.
See that proofs of all jobs and publications are delivered to the proper persons on schedule
Check proofs and see that corrections are made.
Supervise the storing of cuts and plates; also type for future editions.
See that sufficient and proper materials are on hand.
Collect and check daily time tickets.
Make a daily record of progress of jobs.
Recommend the purchase of equipment.
Requisition supplies and repairs and replacements for the department.
See that all cuts are in good condition before forms are sent to pressroom.
See that all work done on jobs is charged to the proper operation number.
Have compositor make all changes in forms on presses.
Supervise routing of copy and proofs to typesetting machines, hand compositors, and proofreaders.
Supervise compositors, machine operators and proofreaders.
After consulting superintendent, hire or discharge help for department.
Confer with employees in regard to grievances and confer with superintendent if unable to arrive at satisfactory solution.
Train apprentices.
Suggest method of operation changes to increase production.
Make recommendations for wage increases.
Take a personal interest in the employees in department.
Know the company's policies.

The Automatic Line Stop

(PART NO. M-11 ASSEMBLY)

An operator, changing from long measure to short, forgets to push the Line Stop into the first elevator jaw. The unsupported line is lowered with the jaw to the mold. A little wear in the jaw, and the line twists as it lines up with the mold. Result, a messy front squirt, machine down, production time lost. Two squirts prevented may pay for the cost of this attachment which is only $4.00! Aluminum guard is optional at $1.25.

†PUSHER, attached to elevator transfer (Part No. D492). As transfer moves to return spacebands to box, it carries the pusher against



*SPECIAL LINE STOP which is brought almost to pawls of the jaw after each line is cast.

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"There's more to SHRINKAGE *than just writing an order,"*

—remarks the Stereo Superintendent to the Business Manager . . . "If you want to know the whole story, call in the Certified man . . . You can rely on him. If he thinks more shrinkage would not help us, he will say so . . . If he says it would, he will show us how to get it—not only the mat, but the little changes in procedure that make results sure free of trouble."

"I will send for him," answers the Business Manager. "I am afraid we are overlooking a bet in shrinkage."

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Maintaining Executive Confidence*

WHEN I feel enough confidence in a man's ability and integrity to make him a foreman or supervisor, then I do not, as a matter of practice, meddle with the operation or functioning of his department. I consider him as an important part of the management. I see that he has the best equipment to work with. Therefore, when he runs into difficulties that he cannot solve, he comes to me, his friend and manager, for help and advice. He knows I have confidence in him. I have praised him when he has excelled. I can help him to keep on excelling. My reaction to his mistakes is to show him how to prevent them from happening again. The average normal human being is chagrined when he makes a mistake and does not want to make it again.

*By Alex J. Alberg, Manager of Printing, Unity School of Christianity, 917 Tracey St., Kansas City 6, Mo. From address delivered before International Craftsmen's Convention, Niagara Falls, Ont., July 1944.

or to avoid magnifying the subject's personal accomplishments. In this respect, we feel that Mr. Mertle has done a good piece of writing.

Flader's character as the strong man of the photo-engraving industry is well presented. His devotion to the industry is matched only by the opportunity for service which was offered by the industry. It seems true that opportunity for service and the right man to perform the service never fail to come together.

A particularly interesting portion of this biography is related to the commencement of Flader's services with the Photo-engravers' Association—that is, it's informative to those who are not familiar with Flader's career.

A short excerpt from Mertle's summation of Flader is quoted as follows: "A person as resourceful as Flader is practically certain also to be aggressive . . . In connection with this trait is the natural accompaniment of strong prejudices which Flader in the past has sometimes entertained in quick judgment of men . . . Of a fearless and outspoken nature, the above characteristic coupled with caustic though logical remarks on Flader's part, have sometimes caused bitter enmity among those whose logic or ideas failed to measure up to those held by Flader. It must, however, be said that once his judgment of a man or situation has changed, so also opinions and feelings incur change. Flader is not a man to hold prejudice long on the flimsy foundation of personal opinion, and as he ripens into age, the quality of combativeness seems to diminish, with resulting greater tolerance and charity toward those holding different ideas."

Mechanically, the booklet is gotten up in simple but dignified format. A tinted halftone portrait of Mr. Flader serves as a frontispiece. There is little ornamentation in the typography. Cover is ornamented with plain two-color pasted-on label. Booklet is tied with orange colored cord.

F & L Litho Letter Portfolio

THE Fuchs & Lang Mfg. Co., Div. of General Printing Ink Corp., has prepared a file folder to house back numbers and current issues of the *F & L Litho Letter* so that they may be kept for ready reference. This portfolio carries an index sheet listing subjects that have appeared in the *F & L Litho Letter*, November 1943 through August 1944. These monthly reports to the industry have covered a variety of subjects, *i.e.*, Chalking, Damper Troubles, Ink Fountain Setting, Oxidizing, Gum Cracks, pH Control.

An F & L Litho Letter Portfolio is yours for the asking. Address your request to Robert J. Butler, General Manager, The Fuchs & Lang Mfg. Co., Div. General Printing Ink Corporation, 100 Sixth Avenue, New York 13, N. Y.

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Think of what you save! (*1*) You get printing jobs out faster because there's less machine downtime, no delays for double melting and pigging; (*2*) Slugs are more clean and sharp, stand up better and take less build-up in the forms; (*3*) Metal loss thru drossage (usually 2 or 3 lbs. out of every 100 lbs.) is cut to 8 *ounces* or less; (*4*) Heavy metal stocks can frequently be reduced by 50%, because Monomelt keeps metal constantly in use, ready for recasting the minute forms are killed out.

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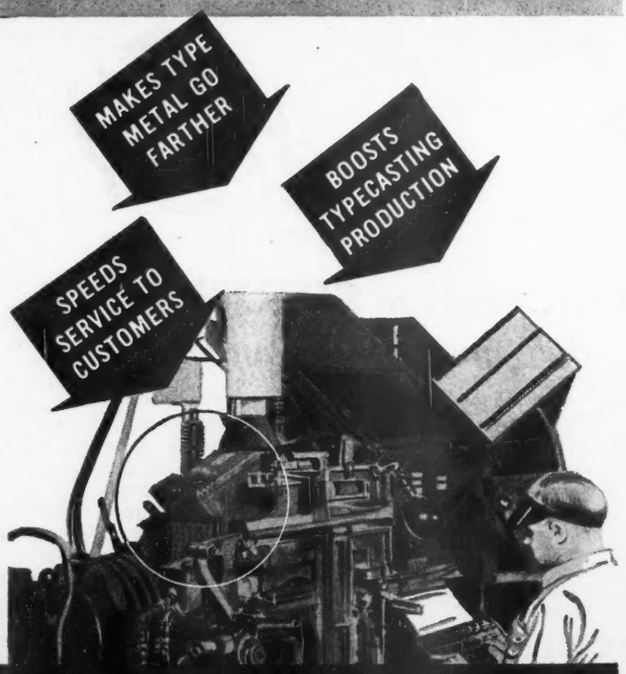

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THE KID DRAWS A CUTE NUMBER

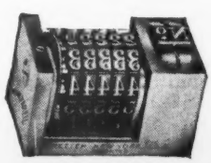
Dear Pop.

Well, I got mine—but not bad. A bit of shrapnel in my right hand. So I'm dictating to a Red Cross Nurse, (not bad, either) one of those brave, unselfish volunteers who are doing so much for us guys. I've had the best of treatment—including a shot of blood plasma. Pop, you ought to see how clean and sanitary these field hospitals are—how carefully instruments are sterilized and put away for the next "job" What a lesson for us in the care of numbering machines now that they are so hard to get.

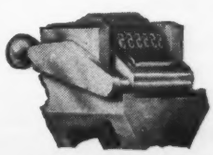
With the Fifth War Loan over the top—I won't preach "Buy Bonds" now. But I do want to urge you and the boys to donate to the Red Cross Blood Bank. We need lots more blood plasma here, and everywhere. I know!

So long, Pop don't worry, my number's not up yet.

The Kid



Wetter Lock-Wheel
One of many models



Wetter Rotary
One of many models

WETTER NUMBERING MACHINE CO.
ATLANTIC AVE. & LOGAN ST., BROOKLYN, N. Y.
Sold by all dealers and branches
AMERICAN TYPE FOUNDERS

6098

ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

Fastens All Gauges

Irrespective of gauge thickness, Booth's Zink Cut Cement is equally efficient in fastening photo-engraved cuts to bases. It is also used for fastening shell-cast stereos, electros and plastic cuts to bases so the cuts will appear just as indicated in the advertiser's layout.

During the current scarcity of rubber products, we know you'll appreciate the dependability of Booth's Black Rubber Rolls for line-composing machine keyboards. We are still able to supply the genuine prewar roll which is made from as much pure rubber as possible to give positive traction to cams. If you've not tried these fine rolls, send for a trial pair at $1.45. Per dozen price, $7.75.

THE E. A. BOOTH
RUBBER COMPANY
364 ROCKEFELLER BUILDING • CLEVELAND, OHIO

WPB Notes

Foreman Training for Veteran Supervision

IN a recent issue of the *NAM News*, published by the National Association of Manufacturers, 14 West 49th St., New York 20, N. Y., a supplement was published. Special training of foremen is urged for the role they will play in the rehabilitation of veterans, particularly during the critical first few weeks of their change-over from military to civilian life.

While the suggestions have been prepared for industry in general, and from the standpoint of large manufacturing plants, yet the printing plant executive may find material in the supplement which will be of value in his own plant for use in supervising returned veterans.

The *NAM News Supplement* suggests that management provide its supervisory personnel with some training and information on these specifics:

(1) The employer's legal obligations, such as Section 8 of the Selective Service Law, particularly those provisions which relate to the veteran's rights to his former job.

(2) Effect of Section 8 on the seniority practices of industry generally, along with the company's stated and contractual seniority practices.

(3) The G.I. Bill of Rights, its provisions, and the various benefits it grants veterans.

(4) The company's in-plant veteran employment program, especially as it concerns veterans who were former employees, veterans who are now employees but have had experience in similar work, and veterans who are being employed for the first time and need 'indoctrination' into industry.

(5) Human and technical problems, stressing the foreman's friendly understanding of the fact that the veteran is eager to 'succeed on the job' and the fact that it is the foreman's duty to see that the veteran is given the full benefit of assistance from both the personnel and medical departments in order to fit smoothly into his working life.

(6) Physically handicapped need proper placement and, fitted into the right job, properly trained, they are wholly productive. Veterans still undergoing medical treatment should have their time arranged so that they may continue any treatments necessary to bring them back to normal health.

(*Continued on Page 44*)

Fuzzy reproductions of type and halftones are as outmoded and as useless as grandma's bustle. That's why, where clean cut, reproduction is a must, Burgess Chrome Mats are being used more every day. Even on distinctive fine line serifs, reproduction is perfect. Try Burgess Chrome Mats today . . . and see the difference a really good mat can make.

A Laboratory Product
BURGESS Chrome MATS

THIS ADVERTISEMENT PRINTED FROM PLATE MADE FROM A BURGESS SUPREME TONE-TEX MAT

BURGESS CELLULOSE COMPANY
Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats
FREEPORT • ILLINOIS
Pacific Coast Representative
RALPH LEBER CO. 426 Polson Bldg. SEATTLE WASH.

Russian Formula For Printers' Rollers

ACCORDING to *Glycerine Facts*, M. M. Nurkas (*Poligraf. Proizvodstro*, through *Chem. Abstr.* 38:2124, 1944) describes the raw materials for a new type of printers' rollers as: glycerine, potato or paste starch, crystalline or amorphous magnesium chloride, and additives such as ammonium dichromate, potassium permanganate or manganese dioxide. Instructions for making a printing roll from these materials are as follows: To 1 liter of glycerine add 0.3 liter of an aqueous solution of magnesium chloride (density = 1.30) and 1.5 kg. of solid magnesium chloride. Dissolve at 80-90 deg. C. and cool to 18-20 deg. C. Mix 1 liter of this solution and 0.6-0.8 kg. of dry starch. Add 8-10 Gm. of an additive or a mixture of any two. Stir well, filter and let stand for 6-12 hours. Remove the foam carefully from the solution before filling the mold. Hold the filled mold at 85-90 deg. for from 75 to 90 min. Rollers made this way are claimed to fulfill typographical requirements efficiently.

For cleaning the rollers, the following mixture is recommended: Soap solution (10%) 5 parts; Kerosene, 3 parts.

After

2½ YEARS OF WAR

SPECIFICATIONS *remain the same*

Considering the war needs for metals entering into the manufacture of type metal—their scarcity and restrictions—Imperial is proud of the fact that we have not had to change the specifications of any Imperial metals. They are the same today as before the war and, so far as we can see, will be the same high quality after the war. Such dependability in type metal is worthy of your consideration . . . Write and let us give you details on Imperial metals and the Plus Plan.

IMPERIAL
TYPE METAL CO.

Serving the Graphic Arts Industry Only

PHILADELPHIA NEW YORK CHICAGO

Imperial

ADDED STRENGTH TO THE PRINTED MESSAGE

Today's paper problems place unusual burdens on the users of printed matter. Because of the 140 years' experience and our application of modern techniques, Johnson Inks afford quality reproduction that helps overcome many current difficulties in giving messages added strength, extra value.

CHARLES ENEU Johnson AND COMPANY
GOOD INKS SINCE 1804

Philadelphia • New York • Chicago • Boston • St. Louis • Cleveland
Detroit • Baltimore • Kansas City • Pittsburgh • Atlanta • Dallas

Everywhere You Go . . .

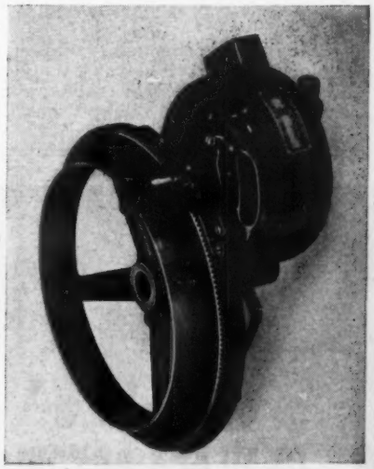
CUSHMAN (OFFSET) MOTORS

are to be found. And wherever you find them the story of twenty-five or thirty years of uninterrupted service on Typesetting machines is commonplace.

★

Users may now obtain Catalog and Instruction Book.

★



Cushman Motor Division

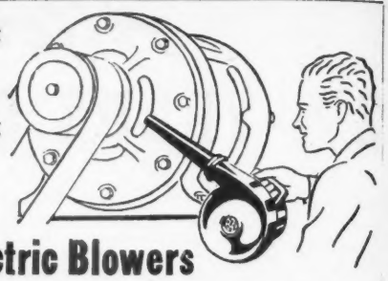
LINOTYPE PARTS COMPANY
WEATHERLY, PENNA.

DUPLEX PRESSES

Semi-Cylindrical • Unitubular
Tubular • High Speed Flat Bed
Flat Bed • Stereo Machinery

The Duplex Printing Press Co.
Battle Creek, Mich.

Cleaner Type
Less Loss
Better Work
when you blow out dust with



TORNADO Electric Blowers

Powerful 1 h. p. motor blows clean, dry air at 295 m. p. h. Cleans type, cases, presses, thoroly, quickly, at low cost. Convertible into Vacuum Cleaner. Soon pays cost.

Write for details and Free Trial Offer!

TAKE THE DUST OUT OF DUST BY BREUER'S BALL BEARING TORNADO PORTABLE ELECTRIC BLOWER

BREUER ELECTRIC MFG. CO.
5114 N. Ravenswood Ave., Chicago, 40

(*Continued from Page 42*)

Solving Paper Problems

PREDICTION of a probable shortage of book and fine paper during the fourth quarter of 1944 was made by War Production Board officials at a meeting of the Commercial Printing Advisory Committee during the week of August 21.

Possible steps to meet this shortage were discussed by committee members who recommended two possible solutions as an alternative to a proposed 10% reduction of existent quotas for all types of paper. These are:

(1) Utilization of approximately 18,000 T. of heavy paper now in storage.

(2) A reduction in inventories based upon the highest inventory during the preceding three or four quarters.

Committee members agreed that these measures would save enough paper to meet the expected shortage of light-weight paper facing the commercial printing industry during the last quarter.

Though there is a large quantity of heavy-weight paper in storage, printers have been preferring supplies of light-weight paper, it was explained. Committee members urged that printers be encouraged to use larger quantities of heavy paper instead of the lighter grade by using the lighter paper, printers have been able to increase the quantity of paper available under their quotas.

One method suggested was the creation of a "bonus" of heavy paper to the printer without affecting his tonnage quota. WPB was urged to advise paper users to cooperate in this problem by using more heavy paper and thereby lessen the shortage of light-weight paper.

Committee members said that a reduction in inventories would be a more equitable solution than a straight quota reduction of 10% for all grades of paper. WPB suggested that this reduction might be varied by a smaller cut to those plants who need a large inventory at the end of the year, and a larger cut for plants customarily carrying a small year-end inventory.

Sixty Days (as of August 25) are Crucial Ones for Paper — What You Can Do

THE Joint Committee on Government Relations of the Commercial Printing Industry, of which James F. Newcomb and Edwin Lennox are co-chairmen, has issued a bulletin with respect to the critical situation in paper during the sixty days extending from August 25.

The bulletin has been published as the result of WPB's warning of a possibility of a cut in paper allotments by the fourth quarter of 1944.

The Joint Committee offers some construction suggestions to the industry in order to prevent the imminent cut in paper allotments. The Committee reports it is convinced that an all-out effort by the commercial printing industry during this sixty-day period will prevent any further cut.

In order to accomplish this objective, the committee suggests three things which the commercial printing industry must do:

(1) Conserve every possible pound of paper.

(2) Give utmost support to the paper salvage drive.

(3) Limit and postpone insofar as possible all orders for paper stock during the next sixty days.

While the Committee's suggestions will not have reached readers of *Printing Equipment Engineer* until after the suggested effective date, yet we feel that those executives reading about the suggestions for the first time can help importantly if they will put them into effect at once.

Recent Changes in WPB Orders

WITHIN recent weeks, the War Production Board has changed or modified many of its orders to meet existing conditions in industry. Most of

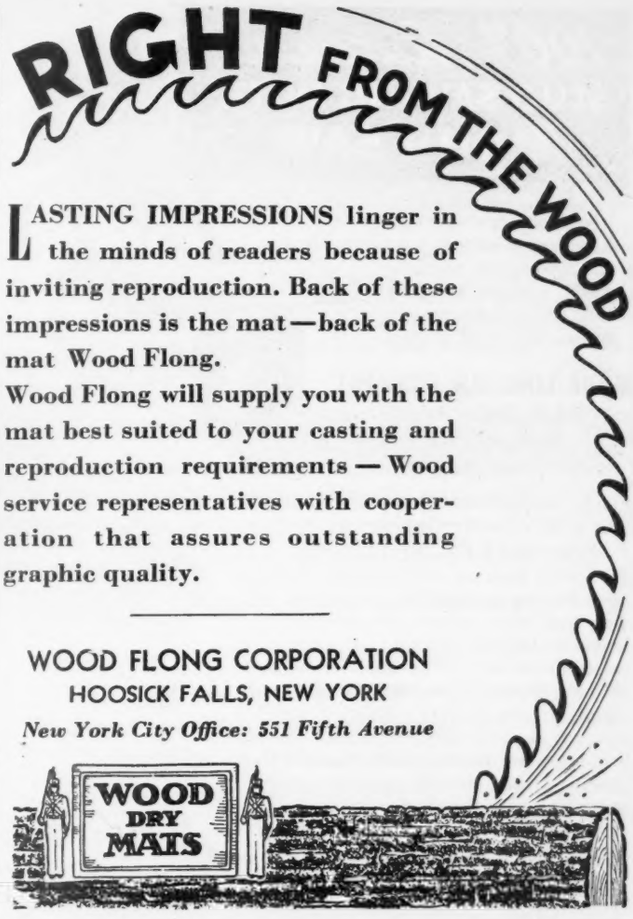
OHIO KNIVES

OK BLACK ARROW *Trimmer Knives*

A special heat treatment of the steel assures you of extra long life between grinds and a tough edge for all kinds of cutting.

OHIO KNIFE CO. • CINCINNATI 23, OHIO

You Can Do a Better Job with CHALLENGE IRON FURNITURE
. . . and faster with less make-up time lost and lower spoilage and labor cost.
● LABOR-SAVING IRON FURNITURE with the Velvet Edges. Light and cross braced. Raised figures on both sides to show pica size. Wide range of standard sizes from 2x4 to 10x70 ems pica.
● MAMMOTH IRON FURNITURE saves time in filling large spaces. Seventy sizes ranging from 15x15 to 60x120 picas.
WRITE for complete list of sorts and special fonts. Economically priced.
FOR VICTORY BUY UNITED STATES WAR BONDS AND STAMPS
THE CHALLENGE MACHINERY CO.
Main Office and Factory: GRAND HAVEN, MICH.
1893 50TH ANNIVERSARY 1943
Eastern Sales Office: 50 Church St., NEW YORK


RIGHT FROM THE WOOD
LASTING IMPRESSIONS linger in the minds of readers because of inviting reproduction. Back of these impressions is the mat—back of the mat Wood Flong.
Wood Flong will supply you with the mat best suited to your casting and reproduction requirements — Wood service representatives with cooperation that assures outstanding graphic quality.
WOOD FLONG CORPORATION
HOOSICK FALLS, NEW YORK
New York City Office: 551 Fifth Avenue
WOOD DRY MATS

these are general in nature, but a number of them are of interest to the printing and publishing industry as well as manufacturers of equipment and supplies. The orders related to the printing industry are listed below:

ANTIMONY—The War Production Board on August 19 restored governmental control over antimony by amending the General Imports Order M-63. WPB announced on Thursday, August 17, that import controls had been removed from antimony and 50 other commodities. Officials said that antimony had been inadvertently included in this list. M-63 was therefore amended on August 19 to restore antimony to the order.

CHROME PIGMENTS — Amendment to M-370, 7-7-44.—Broadens definition of zinc chromate to include pigments manufactured as a reaction product rather than as a precipitation product; also broadens printing ink definition to include materials used in printing awnings.

COMMERCIAL PRINTING—Amendment to L-241, 7-18-44.—Removes certain restrictions as to the weight of paper used for transportation tickets and modifies requirements for printing admission tickets; also lifts restrictions applying to sheet music.

COPPER—Revision of M-339, 7-10-44.—Allows electrotypers and gravure platemakers all of their permitted usage (up to 60 per cent of 1940 quarterly usage) in the form of new copper, provided that half of this amount is in the form of new cast anodes received by the plate-maker in return for an equal amount of printing industry scrap copper; sheet copper in the hands of suppliers on December 31, 1942, also released for use in making copperplate engravings.

FOLDING AND SET-UP BOXES—Amendment to L-239, 7-24-44.—Restricts the manufacture of folding and set-up boxes and eliminates unnecessary types.

HACK SAW BLADES AND HARD-EDGE FLEXIBLE - BACK BAND SAWS—Schedules VII and VIII to L-216, 7-29-44.—Provides that after July 29, 1944, no producer shall manufacture, sell or deliver any of these products unless such blades and saws are of the widths, thicknesses and have the number of teeth described in the appendices to the schedules.

MECHANICAL BINDINGS — Amendment to M-126 provides removal of restrictions on iron and steel for use in making spiral bindings. Control and allocation for the industry is now under jurisdiction of Loose Leaf Metal Parts, and Units Order L-188. Under L-188 allocation of new iron and steel is permitted quarterly in amount not exceeding 75% by weight of metal consumed by manufacturer in the corresponding quarter of 1941. There is no end-use control on this type of binding. The printer wanting to use this binding must file CMP-4-B form with WPB, accompanied by a letter containing a statement of poundage of such material used during 1941. If a printer buys binding already processed or spiraled, then it is necessary for the processor to obtain authorization. If the printer obtains unprocessed (straight) wire which he expects to spiral himself then the obligation to obtain authorization is upon him.

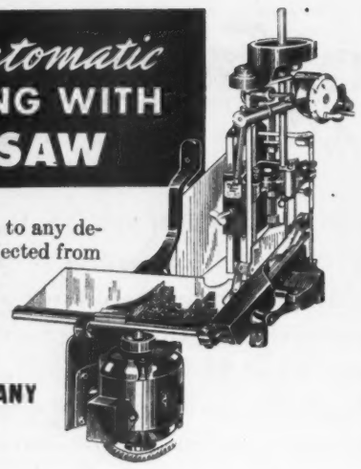
PAPER FOR PRINTING — L-340, 7-19-44.—Limits usage of paper of all government units, other than the United States Government, using more than a ton of paper per annum or purchasing more than $1,000 worth of printing a year, to 75 per cent of their base tonnages.

PRINTING INK — Amendment to M-53, 7-31-44.—Revises the definition of news ink to permit the use of toners in ink for producing newspaper magazine supplements.

SORBITOL - ISOMERIC MIXTURES.—On August 22, the War Production Board removed allocation controls from commercial grade non-crystalline sorbitol-isomeric mixtures, chiefly used as glycerine substitutes in the production of adhesives, pastes, glues, printers rollers and food products. These mixtures had been under allocation control in Order M-300—Schedule 20, the general chemicals order. In view of the improved glycerine supply, demands for these mixtures have fallen off sufficiently to make the amounts available ample for future requirements.

ULTRAMARINE BLUE PIGMENT—Amendment to M-300, 7-29-44.—

100% Automatic
SLUG SAWING WITH
MOHR SAW



The Mohr Saw cuts slugs to any desired length as they are ejected from the linecasting machine. 100% automatic operation. Accurate and speedy. Saves time and money.

MOHR LINO-SAW COMPANY
126 N. Union Avenue
Chicago 6, Illinois

STANDARD EQUIPMENT
ON MANY LEADING TRIMMERS

This perfected SWW paper trimming knife features:
1. A .002" concave bevel; grinding to a razor edge sharpness made easier.
2. Greater rigidity—limits variance across a trim to less than .001" inch.
3. Special heat treatment responsible for the knife's unusual edge holding qualities.

On the market for 60 years. Thousands of printers use them. Yours awaits your order—by letter, wire or phone.

SIMONDS WORDEN WHITE COMPANY
607 NEGLEY PLACE
DAYTON, OHIO

SWWCo

Places ultramarine blue pigment under allocation effective August 1st.

ZINC SHEETS—Revision of M-339, 7-10-44.—Relaxes restrictions on zinc sheet for use in making printing plates. The amended order permits a plate-maker to use 100 per cent, by weight, of the amount of zinc he used for making printing plates in the corresponding calendar quarter of 1941 instead of only 60 per cent as previously permitted; also allows any plate-maker to consume up to 250 pounds of zinc in any calendar quarter beginning with the third quarter of 1944.

Order M-65 Amended to Permit Use of Cadmium in Printing Alloys

ADDITIONAL uses for low-melting point alloys containing cadmium are permitted under a new revision of restrictions applicable to this metal, the War Production Board announced on August 9. In announcing the revision, which is contained in WPB General Preference Order M-65, as amended August 8, 1944, WPB officials pointed out that most low melting point alloys (those which melt at temperatures below the boiling point of water) contain cadmium and are therefore restricted by the order.

Under the amended order, permitting additional uses: (1) Cadmium may not be used in the manufacture of an alloy to contain more than 6.5% of cadmium except for (a) anchorage for bushings in drill jigs and punch press dies and (b) location of control points and surfaces (except floor grouting) in construction of fixtures, and (2) Cadmium may not be used in the manufacture of an alloy to contain more than 10% of cadmium except when the alloy is used in six specified instances.

Most alloys melting at temperatures below 212 deg. F., contain cadmium and therefore are subject to restrictions of the order regardless of the percentage of cadmium which they contain.

Of immediate interest to the printing industry, however, is the permission to use ½% cadmium by weight in zinc base alloy for rolling and in the manufacture of type metal alloys. It also clarifies the appeals provisions applicable to cadmium.

Newspaper Order L-240 Amended

ON August 10, WPB amended Newsprint Limitation Order L-240 with respect to the publisher's delivery quota. In the computation of his delivery quota . . . no publisher may order or accept delivery of print paper in excess of his monthly delivery quota, which shall be computed in accordance with the following instructions.

To determine his monthly delivery quota, the publisher will (1) Total his consumption quotas for the third and fourth quarters of 1944. (2) Add the ex-quota tonnage, if any, which may have been granted on appeal for use in the third and fourth quarters of 1944. (3) Subtract his consumption in July 1944. (4) Divide by 5.

Named P. and P. Division Director

JAMES Hale Steinman, Lancaster, Pa., newspaper publisher, who was recently named a consultant in the War Production Board's Printing and Publishing Division, has been appointed director of the division, Harold Boeschenstein, acting director of the WPB Forest Products Bureau, announced on August 10. Mr. Steinman succeeds Arthur R. Treanor, who resigned August 5 and returned to Saginaw, Mich. to resume his activities with Booth Newspapers, Inc.

First Overture in Return to Civilian Production

UNDER date of August 15, the War Production Board issued Direction No. 1, Priorities Regulation 25. This is the first movement in the plan to return certain manufactures to civilian production under certain specific conditions so as not to interfere with the war effort. It sets up procedure by which a considerable amount and kinds of consumer durable goods which have been restricted by WPB orders can be put into production by manufacturers.

A long list of orders are listed in this Direction No. 1 but until they have been specifically amended to provide otherwise, authorizations granted by WPB under the new regulation will give relief only from the provisions of the order

A.P.S. GUMMED PACKING
CORK BLANKETS
CREEPERS
POURING SHEETS
ROUTER BITS
TAILBOARDS

ALWAYS BEST AT
AMERICAN PUBLISHERS SUPPLY
P. O. Box 924 Lynn, Mass.

Send for This Free Specimen Book
53—COLORS, BLACKS, WHITES, COMPOUNDS
Write to International Printing Ink, 350 Fifth Avenue, New York 1, N. Y. Branches in principal cities.

ipi Everyday INKS

SAFETY·RELIABILITY·ECONOMY
CLINE
PRESS DRIVES
and
CONTROL
Reels, Tensions
and Pasters...
CLINE SYSTEM
CLINE ELEC. MFG. CO.
Chicago: 211 West Wacker Drive
New York: 220 East 42nd Street
San Francisco: 1st Nat'l Bank Bldg.

$325 GET THE FACTS!
ON THE
NEW Rouse BAND SAW
H. B. ROUSE & COMPANY
2216 N. WAYNE AVE., CHICAGO, ILL.

PREPRINT
To PREPRINT means to check and to correct plate and form faults and errors when it can be done most economically and efficiently.
It will cut down your makeready time, increase the impression output of your presses, and add to your profits. Write for circular.
VANDERCOOK
PROOF PRESSES · BLOCK LEVELLERS · HACKER GAUGES
VANDERCOOK & SONS, 900 N. Kilpatrick Ave., Chicago 51, Ill.

RICHARDS Saws SINCE 1910
"MULTIFORM"
"ELECTROMATIC"
"DOMORE" "CLIPPER"
SAWS — ROUTERS — DIES
J. A. RICHARDS CO., Kalamazoo, Mich.

miller
... for modern pressrooms
MILLER PRINTING MACHINERY CO., PITTSBURGH, PA.

MECHANICAL AND PRODUCTION EXECUTIVES
Should read carefully the current report on Trends in the Industry as revealed by our Report of Survey taken in plants throughout the United States. Section I in this issue.

A printing company, a quarter century in business, with a record of steady, successful, conservative growth, in preparation for Post War, is seeking a modern printing plant near Chicago, capable of producing better than $100,000 a year and equipped for publication and catalogue printing. In the position to buy outright or would consider consolidation with the idea of either operating both plants, or could move present work from Chicago and enlarge if necessary to handle. Confidential. Reply Box No. 209.

which either prohibit manufacture entirely or restrict the amount of manufacture permitted.

Some of the things which authorized to be manufactured which are of interest to the printing industry are:

L-255—Electrical conduit, electrical metallic tubing and raceways.

L-13-a—Metal office and industrial furniture and fixtures.

L-28—Incandescent, fluorescent, and other electric discharge lamps.

L-89—Elevators and escalators.

L-314—Lubrication equipment.

L-74—Oil burners.

L-75—Coal stokers.

L-199—Plumbing and heating tanks.

L-188—Loose-leaf metal parts and units. (Amended Aug. 15).

L-226—Printing and publishing machinery, parts, and supplies.

L-54-a—Typewriters.

Advertising With Newsprint

(Continued from Page 19)

To coat this raw stock both sides a special white base ink was developed by a prominent ink company—an ink base which could be adapted to halftone or process color work. We found that any one or a multiple of colors on this base will dry flat, even though there is overlapping or overprinting of one color upon another. We also found that these specially made inks cannot be used on a press with rollers made of glue or glycerine composition. Rubber rollers are essential to apply the base coating or overprinting colors successfully. These special inks dry by contact with moisture from the air. Frequently, instead of the regular spray solution, water is used in the spray guns to prevent offsetting. The base coating is applied on the offset press by using a dry plate and shutting off the water entirely. A special solution is necessary for wash up on these inks.

Printing Technique

When printing halftones and process color plates on this base coated paper by letterpress it is advisable to make chalk overlays because of the extra pressure required to reach the base of the surface coating, which is an opaque white ink and therefore more difficult to print on than the glossy chalk mill coated paper. It is obvious that because of the uneven nature of the base coating, work done on the offset press will be more clear in detail than that done by letterpress. The application of base coating on both sides of the sheet increases the strength of the stock and brings the weight of the paper from a 64 lb. basis up to a 100 lb. basis. This increase is not included in the quota restrictions. The coating of both sides also reduces the problem of register by preventing the moisture from entering the sheet. While flat color plates and line cuts work very satisfactorily on both these coated papers, it is not advisable to have halftones of finer screen than 100 line.

The special base coated news has a few advantages over the gloss mill coated news. If, after coating the sheet with special base ink, we desire to transfer the job to the letterpress, we can then use standard full color inks for the balance of the order, using the regular glycerine rollers. It is only with the special base white or colors made from the same base where rubber rollers must be used.

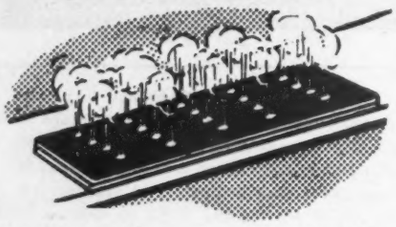
The Printing Problems

The flimsy nature of both these coated newsprints requires about 50% more time in makeready and running. Bindery and mounting time is also increased by the same ratio. The volume of ink used on our base coated news creates a problem for the mounters of displays. The weakness of the paper base stock and the heavy coating of ink on both sides make the sheet brittle for die-cutting, and unless the cutting rules are extremely sharp, the paper will break in the cutting points, leaving a ragged edge.

The use of these coated newsprints reopened the field of color creative work,

STEREOTYPE PERFORATED GUMMED PACKING FELT

Important where considerable shrinkage is employed



Manufactured under Patent No. 1,967,444

Is More Flexible • Forms with the Mat • Dries Faster • Sets Instantly

Send for a Trial Order Today — Sheets or Cut Strips

American Publishers Supply

P. O. Box 924 **Lynn, Mass.**

and while it did not restore our normal volume, it did give us an opportunity of supplying the demand for advertising renowned products, the continuity of which our customers felt was essential for postwar recognition.

When our liberty-loving people settle down again to peace and comfort our problems on newsprint will be relegated to the archives.

High Moisture Mats

(Continued from Page 14)

shrinkage can be obtained per percentage of moisture contained in the mat.

This can be demonstrated and proved beyond any doubt in your individual plants by allowing a mold to air dry until it contains only the amount of moisture there may be in the atmosphere of the room, which is usually 5% to 7%. Then give this mat a final dry in some type of scorcher to make sure that the moisture has been entirely removed. Then make another mold from the same form and place it immediately into a hot scorcher. You will find considerable difference in shrinkage of the two molds. The air-dried mold will shrink considerably more than the mold immediately placed in the hot scorcher.

I fully realize because of the speed necessary to produce our daily papers and editions that we can't allow mats to lay around and air dry for several hours, so that we may get the maximum shrinkage. However, our lack of time to do this certainly does not change the fundamental facts. With this thought in mind it would seem to me that it behooves us to make the necessary adjustment in our scorching equipment so that we may closely approach the principle of operation without the sacrifice of too much time.

Used Auxiliary Scorcher

This usually can be done through the use of an auxiliary scorcher, operated at a low temperature, with a cover having just enough weight and tension to hold the mold lightly and uniformly on the base of the scorcher. The length of time the mold should pre-dry in this scorcher should be determined by the amount of moisture originally in the mat and whether or not you have vacuum equipment. A mat containing considerable moisture has less stayback than one of a lesser moisture content. To increase its stayback before placing it into either vacuum casting or scorching equipment it would seem advisable to first expel some of the moisture.

However, the more important reason for pre-drying the mold at a low temperature is to eliminate the stress and strain and the terrible distortion that takes place when a mold is subjected to high temperatures. Many of you have contended with this problem and the poor printing resulting from it.

We can best understand why this failure takes place if we will just ask ourselves as to what particularly causes a mat to shrink. Of course, generally speaking, the answer is that the mat fibers have become swollen and enlarged by the application of moisture. After the impression has been taken in the mat the ideal condition would be to expel the moisture in such fashion so that the fibers will return as near as possible to their former position. If the moisture could be discharged uniformly from all fibers at the same time our problem would be simplified. It should be apparent that the makeup of any form prevents this. If we apply considerable heat to a high moisture content mat we aggravate this condition tremendously and distortion results. Alongside column rules, surrounded by 8 pt. text matter, I have seen mats so badly distorted that it was impossible to cast a good plate. When this happens you had better relieve the tension thus created by reducing the scorcher temperature, because you really are in trouble.

It is quite possible that there will be other types of energy applied in the drying of mats in the years to come that may change the method of application in the handling of high moisture mats. However, I believe the basic principle as outlined will remain with us.

Will Build New News Ink Plant

J. M. Huber, Inc., will build a new news ink plant in Borger, Texas where Huber operates a carbon black plant, H. W. Huber, President, announced recently. Mr. Huber stated that this is the first link in an extensive expansion program planned by the Ink Division of the Huber Organization. The new plant at Borger, is being built to serve newspapers in such states as Oklahoma, Texas, Colorado and Kansas. The Borger plant now being rushed to completion will be ready in three months.

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Continuous Supplies...

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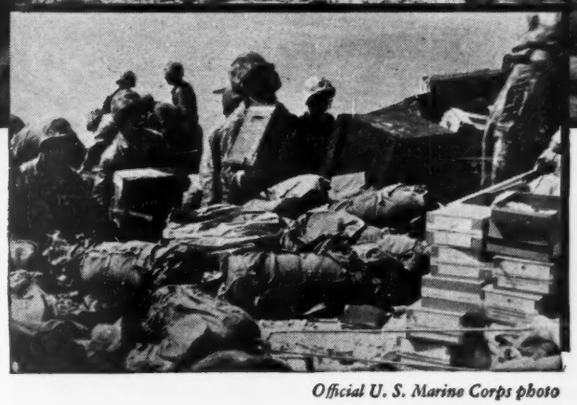
Official U. S. Coast Guard photo



Official U. S. Marine Corps photo

....STEP UP YOUR PAY ROLL PLAN!

War is a continuous job.

Ever-widening, ever-advancing fighting fronts call for a never-ending flow of manpower and materiel—*financed by a continuous flow of money.*

Your responsibility as top management increases with the mounting tide of battle. You've been entrusted with two major responsibilities—steadily maintained production, and steadily maintained War Bond Sales through your Pay Roll Savings Plan.

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Don't underestimate the importance of this task. This marginal group represents a potential total sales increase of 25% to 30% on all Pay Roll Plans.

Constant vigilance, in a quiet way, is necessary to keep your Pay Roll Savings at an all-time high. Don't ease up—*until the War is won!*

The Treasury Department acknowledges with appreciation the publication of this message by:

PRINTING EQUIPMENT ENGINEER

Back the Attack!

SELL MORE THAN BEFORE!

This is an official U. S. Treasury advertisement prepared under the auspices of Treasury Department and War Advertising Council

Freedom of the Press, Europe, 1944

EVEN where the fascist heel has ground most brutally, there springs up an underground movement...and its press. ↓ Even when to be caught means to be beaten and tortured and finally made to stand beside a self-dug grave, there are men and women steadfast enough to risk this daily...not only for themselves but for their loved ones too. ↓ For the urge that dwells deep in a freedom-loving people to publish the truth is hard to kill. In fact it *cannot* be killed. Not even by the best-organized tyranny in history. ↓ ↓ The story of the underground press in the occupied countries is an inspiration to the men and women of America's press. When the truth can actually be printed and circulated under the bloodhound noses of the Gestapo, it is a challenge to Americans to *keep* the freedom of *our* press *intact*. ↓ Military security can be the only permissible reason for interference with the freedom—and obligation—of the American press to publish unhindered the unvarnished facts.

TEXT IN WEISS

INTERTYPE

Twenty-sixth of a series of messages on the Freedom of the Press by INTERTYPE, *Brooklyn*